



SAFETY TAILGATE MEETING GUIDE

SEC-OPS SAFETY TAILGATE MEETING GUIDE

Safety Tailgate Meeting Guide

1. Introduction to safety tailgate meetings.

A safe and healthy work place is vitally important to Sec-Ops. Any job related accident can be costly in many terms to the employee, family, friends, clients and Sec-Ops. It is imperative that work site safety awareness be planned, instructed and implemented in our everyday routines. The safety tailgate meeting is but one example of how to accomplish a safe and healthy work place for all of us. A successful tailgate meeting needs to be well planned, timed and executed. It must engage all the employees and provide relevant information for the hazards that will be faced.

2. What is a Safety Tailgate Meeting?

Safety tailgate meetings are held to keep employees informed of work-related accidents, illnesses and workplace hazards. They allow supervisors to draw on the experience of workers, and use the experience to remind all employees – especially newer ones – on the dangers of particular construction processes, tools, equipment, and materials.

3. Who requires safety tailgate meetings?

OSHA Safety Orders require safety meetings to be held. Per Regulations and Construction Safety Orders:

Supervisory employees shall conduct “toolbox” or “tailgate” safety meetings, or equivalent, with their crews at least every 10 working days to emphasize safety.

4. How to conduct an effective tailgate safety meeting.

1. Hold the meeting on the job, preferably where everyone can sit and relax.
2. Hold meetings at the beginning of a shift or after a break.
3. Keep the meeting duration to around 10-15 minutes.



4. Choose a topic prior to the meeting. Don't choose a topic which is too broad. Be concise.
5. Complete your research and preparation before the meeting.
6. Handout material with topic information.
7. Grab listeners' attention and maintain their interest.
8. Encourage employee participation, but keep the meeting brief.
9. All employees should sign a dated attendance sheet.

5. Documentation

Document attendance and provide relevant information:

1. A copy of handouts on the meeting topic.
2. Maintain attendance roster for each meeting, have employees sign
3. Create a meeting report and submit to the office/headquarters.
4. Keep a log for each employee listing training they received and dates of meetings attended.

6. Choosing safety topics

Safety tailgate meetings should become known to employees as worthwhile meetings. Therefore, choose worthwhile topics – those that are immediately relevant to the health, safety and well-being of workers and the company. Talk about work practices, machinery, tools, equipment, materials, attitudes, and anything else that may cause or contribute to a work-related accident or illness.

The following are excellent sources for surveying related topics:

- Personal experience.
- Review the findings from safety inspections including corrective actions.
- Equipment manuals and Material Safety Data (MSD) sheets.
- OSHA publications.
- A sample list of Sec-Ops safety related topics from the Corporate Safety Policy.

7. Other safety resources:



OSHA website

Project Safety Plans

DISCLAIMER

While the information and recommendations contained within the Safety Tailgate Meeting Guide is believed to be reliable, Sec-Ops makes no guarantee as to, and assumes no responsibility for the correctness, sufficiency, or completeness of such information or recommendations contained within the Safety Tailgate Meeting Guide. Other or additional safety measures may be required under particular circumstances or as directed by contract sites.

MEDICAL INFORMATION

Sec-Ops provides the Safety Tailgate Meeting Guide as a resource directory only and does not diagnose medical conditions or offer medical advice.



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Aggressive Driving

Every year, the Texas DPS reports approximately 500,000 collisions with 200,000 injuries and 4,000 fatalities as a result. The most frequent causes of aggressive driving are:

- f Unsafe speed
- f Improper turning
- f Failure to yield the right of way
- f Failure to obey traffic signals

The Department of Transportation (DOT) estimates that aggressive driving may cause two-thirds of traffic fatalities. Aggressive driving can be caused by:

- f Longer commutes
- f Traffic congestion
- f Other drivers' behaviors
- f Your own mood
- f Your own reactions
- f Your ability to deal with stress on and off the road.

Aggressive driving is triggered by anger – yours or another driver's. Aggressive drivers are more likely to:

- Speed
- Make unsafe lane changes
- Ignore the right of way
- Violate traffic signals.

Aggressive driving behavior includes:

- * Tailgating
- * Unsafe passing
- * Honking your horn
- * Making rude gestures
- * Swearing at other driver

Don't confuse aggressive driving with road rage - a criminal act where a driver tries to intentionally injure or kill another driver, passenger, or pedestrian. Blaring your horn in traffic or making rude gestures are not illegal, but they can escalate and lead to road rage.

Help prevent aggressive driving (and road rage) by:

1. Adjusting your attitude. Forget the idea of "winning" on the road. Driving is not a race; it should not be a contest to see who finishes first.
2. Leaving plenty of time for a trip so that if traffic or another delay occurs, you can keep your cool. Think of the highway as a conveyor belt – everyone will get to his or her destination eventually, so there is no need to speed or act impolite to save a few minutes.
3. Put yourself in the other driver's shoes. Have you ever made a mistake on the road, been lost, or unsure of your turn-off point? Instead of being angry with another driver making the same mistakes, give them the benefit of the doubt. When you make mistakes, acknowledge them and give the drivers around you a friendly nod or wave. Polite behavior makes driving safer.



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4. Ignore rude and bad drivers on the road. Unless you are a traffic safety officer, it is not your job to enforce the rules of the road or punish the bad behavior of others behind the wheel.
5. Whether on Wall Street, in a casino, or on the highway, there will always be bad actors that want to break the rules. Do not try to teach other drivers "a lesson." If you encounter an angry or aggressive driver on the road, don't engage them.
6. Avoid eye contact and do not make (or return) rude gestures or comments. Give an angry driver a lot of room by putting distance between you. Slow down or exit the roadway if necessary, but do not pull off to the side of the road or try to "reason" with an angry driver.
7. Get help by using your cell phone or driving to a public area such as a police station or shopping center.

If you think you have a problem with anger on the road or aggressive driving, get help. Anger management classes or counseling can help you deal with the stress in your life and in your car that may be contributing to your behavior.

Keep your cool on the road and live to work and play another day.



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Air Bag Safety

Vehicle air bags (including front, side and head curtains) rapidly inflate to cushion and protect drivers and passengers in traffic accidents. Air bags have deployed 3.8 million times since first used in the 1980's and have saved 5,000 lives. Installed in 56 million vehicles, the air bag is a supplemental vehicle safety device; the first line of defense is the seatbelt. The risk of death in an accident is reduced by 65% with seat belts alone; seat belt use in combination with an air bag reduces risk by an additional 15%.

Air bag benefits are proven, but most of us have seen the safety warnings posted in vehicles and heard the news that they can kill. To date, air bag deployment has killed 147 people due to the force of the airbag itself, not wearing a seatbelt, and sitting too close to the airbag. Air bags are not soft pillows; they are balloons of air that inflate with a blast of energy. Workers that drive on the job should be aware of the ways to increase air bag effectiveness for themselves and their passengers.

Drivers should review the vehicle owner's manual to determine the type and location of the vehicle air bags. Drivers should wear shoulder and lap belts securely and move the seat back as far as possible and recline it slightly. This helps maintain at least 10 to 12 inches between the steering wheel air bag and the breastbone. Pedal extenders can help smaller adults maintain this distance. To reduce the risk of arm and hand injuries, drivers should hold the steering wheel from the sides (the traditional 10 o'clock and 2 o'clock positions). Tilting the steering wheel down directs the air bag deployment force away from the head and neck. Passengers should always wear their lap and shoulder belts securely. Passengers in the front seat should move the seat as far back as possible and slightly recline it. Pregnant women, children age 13 and up, small stature adults (5 feet, two inches or shorter), adults with medical conditions, and the elderly may sit in the front seat with an air bag if they are securely belted, move the seat back, recline it slightly, and sit straight in the seat with feet on the floor. Those with eyeglasses and pacemakers can also sit by an air bag. All vehicle passengers should keep their arms and feet off of the air bag areas and avoid leaning against side impact air bags.

Drivers that transport children on the job should note the specific safety requirements for children and air bag safety. Infants and children should ride in the rear seat buckled up or secured in child safety seats appropriate for their age and weight.

Air bag fatalities are a rare occurrence, but with attention to safety precautions, we can all ensure that they save more lives than they take.



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Are You Prepared For An Emergency?

Emergencies in the workplace cannot be eliminated, but if you have an emergency action plan in place and have trained workers to respond quickly and appropriately you can optimize efficiency, relieve anxiety, and in some cases, save lives.

Management commitment and worker involvement are essential to an effective emergency action plan. The action plan should be explained to workers and reviewed whenever the plan or responsibilities change. How good is your emergency action plan? Find out by asking yourself and your workers the following questions:

General

- Is there a means of reporting emergencies and accounting for personnel before and after an incident?
- Who is the person responsible for decision-making during emergency conditions?
- Does everyone in the workplace know the procedures to follow in various emergency scenarios (e.g. fire, explosion, earthquake, chemical spill or workplace violence, etc.)?
- Do workers know the escape routes and evacuations procedures including where to reassemble for a headcount or for further instruction?
- Do workers know where emergency supplies are located?

Medical

- Do workers know how to respond in the event of a medical emergency?
- Are there workers trained in cardiopulmonary resuscitation (CPR) and first aid?
- Does the worksite have first aid equipment that corresponds to the possible injuries workers may encounter? (e.g. emergency wash stations, personal protective equipment, oxygen tanks, ice packs, etc.)
- Are emergency response phone numbers (fire department, ambulance, medical facility, etc.) clearly posted where they can be readily accessed?

Fire

- Does the worksite have fire extinguishers that match the possible fire hazards?
- Have workers practiced using the fire extinguishers so that they're aware of their operation and limitations?
- Have the fire extinguishers been recharged within the last year? (They must be tagged to indicate the recharge date.)

Spills

- Does the worksite have absorbent material that matches the quantity and type of chemicals that could spill?
- Do you have relevant personal protective equipment that would be needed to respond to a chemical spill?
- Have workers been properly trained in how to safely respond to a chemical spill?

Once you have established your emergency action plan, make sure workers are trained and retrained in the possible emergencies they may encounter, the emergency procedures they should follow, any first aid or rescue procedures, and in the location of emergency response equipment and phone number. In an emergency an immediate and educated response can save individual lives, the business operation, and thousands of dollars in potential losses.



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Asphalt

Asphalt is a black, sticky material that comes from crude oil. It is used in paving, roofing, waterproofing and some glues. Asphalt is often confused with coal tar or pitch. Coal tar and pitch come from coal, not oil. Asphalt is a solid or semisolid substance. It is mixed with solvents to make it more liquid, and easier to work with. Some of the solvents used to mix with asphalt are naphtha, toluene, and xylene. These solvents are hazardous substances, flammable, very smelly and increase the potential hazards of working with asphalt. There are many different types and grades of asphalt in current use. Who is at risk? It is estimated that 350,000 workers are exposed to asphalt fumes each year. Workers most likely to be exposed to asphalt fumes are road workers, roofers, employees at hot-mix asphalt facilities and general construction workers.

Health Dangers

Breathing asphalt fumes is the most common method of exposure. The acute (immediate) health effects of asphalt fumes include; headache, skin rash, fatigue, eye and throat irritation, and cough. Exposure to asphalt fumes (and the solvents in them) over long periods of time (chronic exposure) may cause lung and stomach cancer. Long-term contact of asphalt with your skin can cause pigment change, which is made worse by sunlight exposure. To find out the specific hazards associated with the type of asphalt you are working with, consult the Material Safety Data Sheet from your employer.

Many forms of asphalt are flammable. This can lead to potential fires and explosions. Sources of ignition (e.g. sparks, flames, cigarettes, etc.) should be kept away from the area where the hot asphalt is being used. Asphalt is almost always used hot, so burns are a common form of injuries. Have a fire extinguisher available, of the correct type, for possible fires. Do not use a fire extinguisher unless you have been fully trained in its use.

Methods of Control

Substitution – there are many types of asphalt. Some are more hazardous than others. If possible, substitute a less hazardous form of asphalt in your construction project.

Isolation – isolating asphalt operations will minimize worker exposure. Where possible, transfer the asphalt automatically by pump to minimize exposures.

Enclosure – enclose the mixing and stirring operations. Stirring asphalt in an open kettle exposes you to fumes, solvent vapors and possible burns.

Prior to starting any job, discuss with your supervisor/employer the appropriate personal protective equipment necessary for the work being performed.

- Gloves – for the best protection, use thermally insulated gloves.
- Clothes – wear long sleeve shirts and long pants.
- Eye protection – wear indirect vent goggles when working with liquids. If the liquids are corrosive, highly irritating or toxic, wear a face shield along with the goggles.

Safe Work Practices

- Do not eat, smoke or drink where asphalt is handled.
- Wash hands carefully before eating, drinking, smoking or using the toilet.
- If you feel ill while working with asphalt, let your supervisor know right away.



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Athletes Foot

Athlete's foot is a skin infection of the foot caused by a fungus. The fungus organism, which is found almost everywhere, thrives in dark, moist environments. Feet that perspire heavily and shoes with poor ventilation make the foot more vulnerable to this infection. It is easily passed from one barefooted person to another at public pools, locker rooms, and bathing areas.

Athlete's foot easily can go unnoticed, especially if there is no itching present. However, there may be peeling, areas of redness, or deep cracks in between the toes. It is commonly found on the soles of the feet, or hidden discretely between the toes where it can have a whitish, soggy look. Odor may or may not be present.

The fungal infection can spread to the toenails, and can be transmitted to other household members. Occasionally, people will develop pronounced symptoms such as painful blisters. Bacteria can enter through these open sores, producing a more serious infection -- especially for people with diabetes. Here are some commonsense measures that can be taken to prevent athlete's foot:

- Wear flip-flops or sandals around swimming pools and public locker rooms
- Expose shoe gear, insoles, and orthotic devices to sunlight to assist drying and combat fungus
- Rotate shoes on a daily basis to allow them to dry completely between use
- Avoid cotton socks since they retain about 60% of the moisture absorbed
- Use wool or acrylic blended socks that encourage wicking of moisture away from the foot
- Change socks daily or more frequently if your feet perspire heavily to ensure dryer feet

Drug stores offer an array of over-the-counter products to treat athlete's foot. Some are more effective than others. Any product chosen must be used routinely and as directed, or the infection may not clear completely.

Persons with circulatory problems or diabetes, and children and the elderly should avoid these products. Instead, a podiatrist or their primary care physician should see them.

To avoid spreading the infection and to prevent re-infection of athlete's foot, shoes and bathing areas also need to be treated. Ultraviolet light from the sun combined with commercial sprays or powders can help treat shoes. Diluted bleach or Lysol are great deterrents when used in the tub or shower areas following bathing.

There are many ways prevent and treat athlete's foot. Take precautions in public areas, keep the feet dry, and rotate shoes from day to day. Respond to infection at onset to help prevent it from becoming more serious. Treat bathing areas and shoes whenever feet are infected. Prevention of athlete's foot is the ideal goal!



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Avoid Common Office Injuries

It is generally accepted that in heavy industry, you'll find dangerous work environments that expose employees to potential injury. But few companies recognize the potential risks found in everyday office environments. Office work, too, can lead to injuries if appropriate safe work practices are not followed. Learn to avoid these common hazards:

Musculoskeletal strains and sprains associated with material handling:

If you must walk and carry an object, make sure the object is carried in a way that avoids blocking your vision. Never lift objects that are too heavy to handle comfortably. Get help, or use a hand truck when moving heavy or large objects. Lift objects from the floor correctly by using proper lifting mechanics-- hold the load close to your body. Use a stool or stepladder when placing or removing items from high shelves.

Stress and strain associated with sitting and computer workstations:

Arrange your desk or work station so that your arms, wrists, legs, back and neck can be maintained in a comfortable "neutral" position, with proper back support. (Eagle can provide ergonomic checklists for evaluating your work area.) Those who spend long hours at a computer should consider mastering keyboard moves, instead of relying principally on the mouse. This helps reduce strain on your arm, elbow and shoulder. And don't forget to take short, frequent "stretch" breaks!

Injuries that result from slips, trips, and falls:

Never run in the office. If liquids are spilled on tile or linoleum floors, clean them up immediately. If a rolling chair pad is cracked or if any part of the pad edge is curled upward, replace it and eliminate the tripping hazard. Do not lay electrical cords or phone cords where they could create a tripping hazard. Keep aisles clear of stored items.

Hand injuries from cuts, scrapes, smashes, and punctures:

Use a letter opener when opening envelopes and boxes, and a staple puller when removing staples from documents. Wear a rubber finger "cot" when fingering through a significant amount of envelopes or pieces of paper. Store sharp objects neatly in desk drawers or inside closed containers. Always close desk and file cabinet drawers with your hand firmly gripped on the drawer handle—and leave repair of office equipment to the maintenance people. Although offices are not considered to be "high hazard" work environments, injuries happen when risks are not controlled or when people get careless. Practice safe work habits at all times. Know where the office first aid kit is kept, and who has been trained to administer first aid. Lastly, make sure you understand the emergency procedures for dealing with fires, earthquakes, tsunamis, and power failures if any.



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Avoiding Falls

Many serious and fatal injuries are caused by falls.

Everyone working on construction jobs must be alert to the hazards that can cause falls. If hazards are discovered, they should be reported to the supervisor and immediate action should be taken to eliminate them.

The following are the hazards that cause the majority of falls in the construction industry. Let's look at the ways to prevent or eliminate these hazards.

- Slippery areas, debris, lumber, and various hard materials and equipment scattered over the floor and construction site can cause serious falls. Proper housekeeping can eliminate these hazards and reduce falls caused by slipping, tripping and stumbling. Slippery floors caused by oil or grease spills or ice should be cleaned up immediately.
- Tools should be stored in a box or rack when not in use. Scrap and debris should be placed in a scrap container.
- Stairways and stairwells can also be serious hazards. Failure to use the handrail can result in a serious fall from the top to the bottom of the stairway. When going down stairs, keep your hand on the handrail so you can grasp it quickly to prevent a fall.
- Worn or broken treads on stairs are also slipping hazards. Replace any defective treads. Never place or store materials or tools on stairways.
- Floor openings and pits should always be barricaded or covered with planking that is securely fastened in place.
- Many serious falls can occur while hurrying. Walk, don't run. Management can do everything possible to provide safe working conditions. But we need your help.

Report any unsafe condition you discover immediately and follow the helpful suggestions we have discussed.

I have been instructed in the basic hazards of this equipment/procedure as listed above. I understand this proper safe work procedure.



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Avoiding Slips and Falls at the Office

It may come as a surprise that falls are the most common type of office injury. Yet almost all falls can be prevented by using common safety sense and learning how to recognize and correct typical fall hazards in the office environment.

Understanding Balance

A fall occurs when you lose your balance and your footing. In short, your center of gravity is and there's nowhere to go but down. You may be thrown off balance by a slip (on a wet floor, for example) or a trip (over an obstacle in your path), but once you lose your footing and support, a fall is inevitable.

Common Fall Hazards

One of the most common causes of office falls is tripping over an open desk or file drawer. Bending while seated in an unstable chair and tripping over electrical cords or wires are other common hazards. Office falls are frequently caused by using makeshift "ladders" (such as a chair, or a stack of boxes) and by slipping on wet floors (by the water cooler or coffee machine, for example). Loose carpeting, objects stored in halls or walkways, and inadequate lighting are other hazards that invite accidental falls. Fortunately, all of these fall hazards are preventable.

The following checklist can help you stop a fall before it happens.

Fall Prevention Checklist

- † Look before you walk – make sure your pathway is clear.
- † Close drawers after every use.
- † Avoid bending, twisting, and leaning backwards while seated.
- † Secure electrical cords and wires away from walkways.
- † Always use an appropriate stepladder for overhead reaching.
- † Clean up spills immediately.
- † If you see anything on the floor – a pen, a paper clip, etc. – pick it up.
- † Report loose carpeting or damaged flooring to appropriate manager.
- † Make sure walkways are well-lighted.
- † Walk, don't run!



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Back Injuries - Get Your Crew Back in Control

Jokes about nagging back pain get standup comedians a lot of laughs, but back strains and sprains are not at all funny, nor should they be an unavoidable curse to anyone.

Back injuries suffered in workplaces last year ran up a bill of millions of dollars. Those disabling back injuries were no laughing matter for the workers who lost time from work or from their personal activities. The sad truth is that most of the pain and lost time could have been prevented if workers had been more aware of how their backs function and how to safely lift bulky or heavy loads.

About your back- The back is a network of fragile ligaments, discs, and muscles that can easily be thrown out of order. The back's complex design breaks down when it is forced to perform activities it was not designed to do.

Watch your back- One sure way to risk injuring the back is to lift heavy or bulky loads improperly or unassisted. The unsupported back cannot operate like a derrick or a crane boom. Lifting with the back twisted or bent just begs for a pulled muscle or ruptured disc. The back can be damaged quickly but can take a long time to heal. So workers should be encouraged to do their lifting with good sense and a little extra help from a co-worker or mechanical aid.

How to Lift Properly

- Squat over the item to be lifted, and face it squarely. In this position, the back gets added lifting strength and power from the legs and arms. Tilt the item on edge with its long axis straight up so the center of the weight is as high as possible above the ground.
- Next, move up close to the item, because the backbone must act as a supporting column, and it takes the least strain close in. In this position, it's OK to lift.
- Still squatting, the feet should be set with legs pointed right at the load, with the back straightened
- Then grasp the load with both arms and slowly stand up with it.

You might notice that the correct way to lift is the easiest way to lift the load, with the least strain and awkwardness. To lift the wrong way will, over time, cause injury and pain and then no one will be laughing.

I have been instructed in the basic hazards of this equipment/procedure as listed above. I understand this proper safe work procedure.



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Battery Charging- A Multitude of Hazards!

Explosive hydrogen....Acidic liquids and vapors....Electrical burns....Strains, sprains, hernias and compressed discs. All of these hazards arise when servicing, charging, or jumping the common lead-acid battery found in cars and trucks. Following a few common sense safety rules can minimize the hazards.

Eye Protection: First, always wear safety goggles or a face shield when working around a battery. Batteries contain corrosive acids that are capable of eating away metals. It takes just one droplet to cause serious eye damage. Just popping open the vent cap may throw out a droplet. A short or faulty regulator can cause the electrolyte to boil, releasing acid vapors. A fault within the battery could cause it to explode, throwing fragments of the case and acid.

Fire Protection: Lead-acid batteries produce flammable hydrogen gas while being charged. This highly explosive gas, generated within the cells, will expand and seep out of the vent caps. A cigarette, tool, or spark from any source could ignite the gas, causing the battery to explode. Always charge in a well-ventilated area. Remember too that the battery is receiving a charge and releasing hydrogen when the car is running, not just when hooked up to a battery charger.

Jump Starting: Dead batteries in cars and trucks are not uncommon- particularly in winter. The first thought is to get a jump-start. When jumping a battery, remember the following safeguards:

- Be sure all electrical equipment is off. If you connect the jumper battery while a load is being drawn, a spark could occur.
- Check the battery fluid level. If the plates are exposed, add water until they are covered. Never add acid.
- Make sure both batteries are of the same voltage.
- Make sure vent caps are in place to prevent electrolyte splash.
- Use good quality jumper cables-at least 10-gauge wire.
- Always be sure of your polarity when arranging the jumper cables:

1. Connect the first cable to the positive (+) terminal of the good battery; then attach the other end of that cable to the positive (+) terminal of the dead battery.

2. Next, attach the second cable to the negative (-) terminal of the good battery, and make the fourth and last connection to a clean metal part, such as the engine block of the car being energized, rather than to its negative battery terminal. This completes the electrical circuit, as if it was connected to the dead battery, but if sparks are produced, it serves to keep them away from any explosive battery gases.

3. Never lay your tools on top of the battery. They could come in contact with both posts, or the positive post and a ground, creating a short.



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Protect Your Back: Batteries are heavy. If you must move one, use a battery strap as a handle, keep your back straight--don't bend at the waist--and tighten your stomach muscles as you lift. Don't twist your spine as you lift or move it.

Remember that these rules apply both on and off the job. The batteries in your own vehicle or on your boat are just as potentially dangerous. Respect the hazards and take no chances or short cuts!

I have been instructed in the basic hazards of this equipment/procedure as listed above. I understand this proper safe work procedure.



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Battery Handling Safety

Batteries are used to power our automobiles, trucks, tractors, and construction or power equipment. There are different types of batteries such as lead-acid batteries, gel cells, and lead-calcium batteries. Most batteries contain sulfuric acid and lead. Because batteries contain chemicals, chemical reaction by-products, and an electrical current they can pose a hazard to workers if not handled properly. Workers that operate, maintain, and recharge batteries should use caution.

Before working with a battery, you should have training in proper handling procedures.

Consult the vehicle and battery owners' manuals for specific instructions on battery handling and hazard identification.

Do's and Don'ts

- f DO wear personal protective equipment (PPE) such as chemical splash goggles and a face shield to avoid splashing acid in your face. If acid splashes on your skin or eyes, immediately flood the area with cool running water for at least 15 minutes and seek medical attention immediately.
- f DO wear acid-resistant equipment such as gauntlet style gloves, an apron, and boots.
- f DON'T tuck your pant legs into your boots because spilled acid can form a pool in your boots.
- f DO be aware of the chemical hazards posed by batteries. The sulfuric acid (electrolyte) in batteries is highly corrosive. Acid exposure can lead to skin irritation, eye damage, respiratory irritation, and tooth enamel erosion.
- f DON'T ever lean over a battery while boosting, testing or charging it.
- f DON'T allow the battery solution to mix with salt water in marine environments; it can produce hazardous chlorine gas.
- f DO practice good hygiene and wash your hands after handling a battery and before eating. If you handle the lead plates in a battery and don't wash your hands properly, you could be exposed to lead. Signs of lead exposure include loss of appetite, diarrhea, or constipation with cramping, difficulty sleeping, and fatigue.

The chemical reaction by-products from a battery include oxygen and hydrogen gas. These can be explosive at high levels.

Overcharging batteries can also create flammable gases. For this reason, it is very important to store and maintain batteries in a well-ventilated work area away from all ignition sources and incompatible materials. Cigarettes, flames or sparks could cause a battery to explode.



Before working on a battery:

- 1) Always remove your personal jewelry before working on a battery. A short-circuit current can weld a ring or bracelet to metal and cause severe burns.
- 2) Disconnect the battery cables.
- 3) To avoid sparking, always disconnect the negative battery cable first and reconnect it last.
- 4) Be careful with flammable fluids when working on a battery-powered engine. The electrical voltage created by batteries can ignite flammable materials and cause severe burns. Workers have been injured and killed when loose or sparking battery connections ignited gasoline and solvent fumes during vehicle maintenance.

Taking care of the battery:

- 1) Battery maintenance tools should be covered with several layers of electrical tape to avoid sparking.
- 2) Place protective rubber boots on battery cable connections to prevent sparking on impact if a tool does accidentally hit a terminal.
- 3) Clean the battery terminals with a plastic brush because wire brushes could create static and sparks.
- 4) Batteries can be very dense and heavy, so use proper lifting techniques to avoid back injuries.
- 5) Battery casings can be brittle and break easily; they should be handled carefully to avoid an acid spill. Make sure that a battery is properly secured and upright in the vehicle or equipment.
- 6) If a battery shows signs of damage to the terminals, case or cover, replace it with a new one.
- 7) Remember to dispose of old batteries properly.

I have been instructed in the basic hazards of this equipment/procedure as listed above. I understand this proper safe work procedure.



SEC-OPS SAFETY TAILGATE GUIDE

Battery Jump Starting

This is primarily a safety check-off sheet to inform the employee of the dangers and hazards of combustible materials. Each employee must be trained on these hazards to avoid injury.

Minimum Safety Equipment Required: Safety Glasses

1. Improper procedures or techniques may result in personal injury and/or damage to the electrical system or computer components. Employees must complete battery training before jump-starting equipment.
2. Is the vehicle in a safe location to be jump-started?
3. If the battery is distorted/deformed, cracked, leaking, or missing a vent cap, DO NOT jump-start, call for assistance.
4. Wear appropriate personal protective equipment consistent with the hazard. Eye protection is required.
5. When working at night, have adequate lighting available.
6. Avoid leaning over the battery whenever possible.
7. Do not expose the battery to open flames or sparks (NO SMOKING).
8. Be sure any batteries that have filler caps are properly filled with fluid.
9. Do not allow battery acid to contact eyes or skin.
10. Both discharged and charged batteries must be of the same voltage.
11. Do not stand between vehicles.
12. Use proper procedure in accordance with the operator's manual. If no special instructions apply, proceed as follows for negative grounded batteries:
13. Make the jumper connections:
 - Connect one end of the red jumper cable to the positive (+) terminal of the booster battery and the opposite end to the positive (+) terminal of the discharged battery
 - Connect one end of the black jumper cable to the negative (-) terminal of the booster battery and the opposite end to an engine bolt head or good metal contact on the vehicle to be started, not to the negative battery terminal of the discharged battery
 - Check the cables to make sure they will not be in the way of moving parts when the vehicle is started
 - Start the engine of the vehicle with the good battery and run it at a moderate speed
 - Start the engine of the vehicle with the discharged battery
 - Remove all cables in reverse sequence. Begin by removing the cable from the engine of the vehicle that had the discharged battery.
 - Keep hands and equipment from all moving parts, belts, machinery, etc.
 - Never use external heat to aid in starting equipment when volatiles are present.

I have been instructed in the basic hazards of this equipment/procedure as listed above. I understand this proper safe work procedure.



SEC-OPS SAFETY TAILGATE GUIDE

Blind Spots in Mobile Equipment Operations

Two recent incidents in the news involving construction equipment backing over workers have highlighted the need for employers to review work practices where workers are required to be in the vicinity of moving vehicles and equipment.

One of the accidents resulted in the death of a worker who was hit by a vehicle-mounted aerial device that was being moved from one location to another. The other incident occurred when a dump truck used on a road repair project was backing into an unloading area, and ran over a worker involved in road maintenance work. In both cases, the accidents were caused by a lack of proper signaling and improper work procedures. Poor sight lines and lack of visibility are inherent in some equipment used on construction projects and in industrial workplaces. This is especially true when the equipment is backing up, or moving in areas where space is limited and the turning radius is tight.

Warning devices, such as back-up alarms and/or flashing lights are provided on some of the mobile equipment, but this is not always sufficient to ensure worker protection. This is especially true on projects where there are many pieces of equipment, constant movement, and high noise levels. Proper site planning, traffic control systems and worker training are the best ways to reduce accidents where vehicles and Employees must work in the same area. (See pre-job risk assessment check list.)

When doing your pre-job risk assessment consider these points:

- Consider the suitability of providing backup alarms on all mobile equipment.
- Whenever possible, plan the project to allow for drive-through operations that will limit the need for vehicles to back-up.
- Reduce foot traffic in areas where mobile equipment is to be working.
- Establish designated travel areas, ideally with barricades or other means to set apart from work locations.

If you must have workers and mobile equipment working in the same area, establish a traffic control system. Where you have heavy traffic a signal person or traffic spotter should be designated to control traffic movement at the site. The signal person must be properly trained, wear reflective fluorescent blaze outerwear, wear safety footwear, headwear, and other personal protective equipment required on the project and use clearly understood hand signals or standard traffic control devices (STOP paddle, etc.).

The signal person must know driver 'blind spots' and remain at all times visible to the driver and any workers in the travel area. The signal person must make eye contact with the driver prior to signaling or changing location. The driver must always obey the signal person and never back up or move in congested areas without the signal person indicating the path is clear. The driver must be trained to understand all signals used by the signal person. Workers on foot should also be trained to recognize driver blind spots and avoid entering these areas.

Driver blind spots (dark areas)



SEC-OPS SAFETY TAILGATE GUIDE

What is Carbon Monoxide?

Carbon Monoxide (CO) is a poisonous, colorless, tasteless, odorless gas. CO gas is generated as a waste product of the incomplete combustion of coal, wood, oil, and other petroleum based fuels (e.g. gasoline, propane, etc). CO gas, although odorless, usually occurs in a combination of combustion by-products that have distinctive odors. The primary source of CO gas is the internal combustion engine. CO gas is also generated in industrial operations such as auto repair, oil refining, steel and chemical manufacturing.

Hazards of Carbon Monoxide

Health Hazards:

CO is a chemical asphyxiate which means that it reduces the blood's ability to carry oxygen. Asphyxiation, or suffocation, occurs when the blood does not deliver enough oxygen to the body.

CO gas is absorbed through the lungs into the bloodstream. Inhalation of CO gas may cause headaches, nausea, dizziness, weakness, rapid breathing, unconsciousness and death. High concentrations of CO may be rapidly fatal without producing significant warning symptoms.

Exposure to this gas may aggravate preexisting heart and artery disease. As CO gas is odorless, there may be no odor warning if toxic concentrations are present.

If you suspect CO poisoning, move the person immediately to the fresh air away from the source of the CO. Call 911 or your emergency number for medical assistance. CO poisoning can be reversed if caught in time.

Safety Hazards:

CO gas mixes very well with air. CO gas penetrates easily through walls and ceilings. It is an extremely flammable gas. CO gas may react very strongly with oxygen, acetylene, chlorine, fluorine or nitrous oxide.

Who is at Risk?

Workers most likely to be exposed to carbon monoxide are welders, mechanics, firefighters, long shore workers, diesel engine operators, forklift drivers, tollbooth or tunnel attendants, police, taxi drivers, shipping and receiving workers and warehouse personnel.

Methods of Control of Carbon Monoxide

To reduce the chances of CO poisoning in the workplace:

- Install a ventilation system that will effectively remove CO from the work area.
- Properly maintain equipment that may produce CO to enhance safe operation and to reduce CO generation.
- Consider switching from gasoline-powered equipment to battery or electric equipment.
- Prohibit the use of gasoline-powered equipment indoors or in poorly ventilated areas.
- Consider installing CO detectors with audible alarms.
- Educate workers about the sources, hazards, and controls of CO.



SAFETY TAILGATE GUIDE

What Can You Do To Help?

- Report any situation to your employer that might cause CO to build up.
- Pay attention to ventilation problems, especially in enclosed areas.
- Avoid the use of gas-powered equipment in enclosed spaces.



SEC-OPS SAFETY TAILGATE GUIDE

Construction Equipment

Construction equipment, including but not limited to; wheel and track tractors, loaders, and bulldozers, backhoes, excavation hoes, graders, scrapers, trenchers and ditch diggers, pavement breakers, boom trucks, cranes and lifts, must be operated within the guidelines established by the manufacturer, and in accordance with safe operating procedures.

All operators must be authorized and trained personnel, who have demonstrated to the unit supervisor, or the Maintenance Section Supervisor that they are familiar with the safe operation of each type and piece of equipment they are to operate. Each operator shall have read and understood the operating and maintenance manuals for each piece of equipment.

All construction equipment shall be equipped with roll-over protection (ROPS) to ensure operator safety, and be equipped with a functioning seatbelt sufficient to prevent the ejection of the operator in event of a roll-over. It is mandatory for all operators to wear the seatbelt when operating construction equipment equipped with ROPS.

All equipment shall be equipped with a backup alarm approved by OSHA which shall be operational at all times when equipment is moving in reverse.

The brakes of each piece of construction equipment shall be in operating condition and capable of stopping the equipment and any load, within limits set by the manufacturer. Brakes shall be inspected annually or every 150 hours of operation whichever comes first. All safety interlocks, neutral switches and implement travel speed limiting devices shall be in operating condition at all times.

Every operator shall wear personal protective equipment including, gloves, hard hat, goggles or safety glasses, and ear protection while operating equipment.

No employee shall operate, or continue to operate, any piece of construction equipment that he/she knows is defective, or becomes defective or unsafe while being operated. Such equipment shall be shut down and secured, and the Unit Supervisor notified immediately. The Unit Supervisor shall take appropriate steps to have the equipment repaired before it is returned to service.



SEC-OPS SAFETY TAILGATE GUIDE

Construction Safety - Identifying Construction Hazards

The following examples are intended to remind workers of the typical construction hazards we see regularly with hopes that everyone will put safety first and correct hazards as they find them.

HOUSEKEEPING - Not enough can be said about maintaining a clean work area! Keeping your area swept and free from debris not only prevents tripping hazards, but it makes it easier to perform your work. Make sure stored materials are stacked neatly and away from work areas.

EXTENSION CORDS - Make sure cord sets have a grounding plug in place before using. If insulation on cords is damaged, take the cords out of service. Elevate extension cords to prevent tripping hazards.

ELECTRICAL PANELS - All panels and boxes must have a cover in place to prevent electrical shock. Ground Fault Circuit Interrupters (GFCI) should be required on all circuits that will be used for portable power tools.

SCAFFOLDING - Elevated working surfaces must be fully planked with toe boards, handrails and mid rails installed. Scaffolds must be erected with vertical members resting on a solid base with the scaffold level. Never climb the outside of a scaffold; ladders are required. Never climb a ladder while carrying tools or materials. Instead, use a hoist line.

LADDERS - Stepladders are a major source for construction accidents. Make sure they are used properly and maintained in good repair. Remove broken or damaged ladders from service immediately. Never lean stepladders against a wall or work surface. Never separate extension ladders and always make sure extension ladders are tied off.

SLIPPERY SURFACES - Make sure sand or some other slip resistant material is applied to icy walking surfaces. Clean up oil and water spills immediately. Another serious cause of slips are "rolly pollys." These are small round objects that can cause a slip when stepped on. Typical ones include: Welding rod ends, stubs from conduit and small diameter pipe.

LIGHTING - Most construction areas require a minimum of 5 foot candles. If you are having a hard time seeing your work, then you need to let someone know and get something done about it. Stairways are a common problem area and require good lighting.

EYE PROTECTION - It is too common to see workers who need eye protection not wearing it. The typical reason is because they did not have glasses with them. Wearing safety glasses all the time prevents this situation. Safety glasses alone are not adequate for tasks that create flying particulate matter such as grinding or cutting. Wear a face shield as well.



SEC-OPS SAFETY TAILGATE GUIDE

CPR Procedures for Adults

Check the victim for unresponsiveness. If there is no response call 911.

In most locations the emergency dispatcher can assist you with CPR instructions.

BLOW

Tilt the head back and listen for breathing. If not breathing normally, pinch nose and cover the mouth with yours and blow until you see the chest rise.

Give 2 slow, even breaths. Each breath should take 1 second.

PUMP

If the victim is still not breathing normally, coughing or moving, begin chest compressions. Push down on the chest 1 ½ to 2 inches 30 times right between the nipples.

Pump at the rate of 100/minute, faster than once per second.

CONTINUE WITH 2 BREATHS AND 30 PUMPS UNTIL HELP ARRIVES

NOTE: This ratio is the same for one-person & two-person CPR. In two-person CPR the person pumping the chest stops while the other gives mouth-to-mouth breathing.

****(Supervisor, Check online for most updated CPR steps prior to lecture)**



SEC-OPS SAFETY TAILGATE GUIDE

CPR Procedures for Children

CPR - CHILD (1 year to 8 years old)

Check the victim for unresponsiveness. If there is no response, give 2 minutes of CPR before calling 911.

In most locations the emergency dispatcher can assist you with CPR instructions.

BLOW

Tilt the head back and listen for breathing. If not breathing normally, pinch nose and cover the mouth with yours and blow until you see the chest rise.

Give 2 slow, even breaths. Each breath should take 1 second.

PUMP

If the victim is still not breathing normally, coughing or moving, begin chest compressions. Push down on the chest 1 to 1½ inches 30 times right between the nipples. Use just one hand for child CPR.

Pump at the rate of 100/minute, faster than once per second.

CONTINUE WITH 2 BREATHS AND 30 PUMPS UNTIL HELP ARRIVES

NOTE: This ratio is the same for one-person & two-person CPR. In two-person CPR the person pumping the chest stops while the other gives mouth-to-mouth breathing.

****(Supervisor, Check online for most updated CPR steps prior to lecture)**



SAFETY TAILGATE GUIDE

CPR Procedures for Infants

1. Shout and Tap

CPR for Infants (Age younger than 1 year old)

Shout and gently tap the child on the shoulder. If there is no response, position the infant on his or her back.

Give 2 minutes of CPR before calling 911.

2. Open The Airway

Open the airway using a head tilt lifting of chin. Do not tilt the head too far back

3. Give 2 Gentle Breaths (puffs)

If the baby is NOT breathing give 2 small gentle breaths. Cover the baby's mouth and nose with your mouth. Each breath should be 1 second long. You should see the baby's chest rise with each breath.

4. Give 30 Compressions

Give 30 gentle chest compressions at the rate of 100 per minute. Use two or three fingers in the center of the chest just below the nipples. Press down approximately one-third the depth of the chest.

5. Repeat

Repeat with 2 breath and 30 compressions. After two minutes of repeated cycles call 911 and continue giving breaths and compressions.



SEC-OPS SAFETY TAILGATE GUIDE

Don't Take Back Problems Sitting Down

Why do so many of us have back problems today? In part, it's the way our work and lifestyle has evolved. As people grow more sedentary in an increasingly automated world, we're doing more sitting and adding extra pounds. As a result, our backs are becoming more vulnerable to injury.

Sitting, especially slouching, is one of the most common positions during our waking hours. It also happens to be one of the worst positions for our backs, by putting continuous pressure on the lower back muscles and disks.

Low back pain is a warning that something is wrong. Recognize this warning and take steps to prevent a back problem from getting worse.

Vehicular vibration adds additional stress to the backs of those who drive long distances.

Here's some back comfort tips for drivers:

- Position the seat forward so that your knees are bent. If the tilt of the seats can be adjusted, change the angle slightly every so often.
- Placing a cushion at the small of your back and sitting in a slightly reclining angle may ease pressure on your lower back while driving.
- Change your sitting position frequently or get out of the vehicle every hour and walk around for a few minutes.
- Grip the steering wheel at the nine and three o'clock hand positions. This puts your arms and shoulders in a more neutral position.

Here are some helpful suggestions if you sit for long periods in an office chair during the course of your workday:

- Choose the right chair, a chair that supports the length and width of your back with adjustable armrests and a seat height you can adjust.
- Sit smart. Sit straight and close to your work, don't slump forward. Your buttocks should rest against the back of the seat. Your knees should stick out a hand's width beyond the edge of the chair with your feet resting comfortably on the floor or footrest.
- Adjust your work height and angle. Your surface work and keyboard should be at elbow level. If you work at a computer, the top of your screen should be at eye level.
- If possible, get up regularly and stretch or, shift your sitting position at least once every 30 minutes.

There are also some general lifestyle choices, which can reduce stress on your back. Sleep on a firm mattress, control your weight, getting some exercise, and for men, take that bulging wallet out of your back pocket when you sit. Make sitting a pleasure not a pain.



SEC-OPS SAFETY TAILGATE GUIDE

Driving Distracted?

Driving down the road is no longer a lonely, quiet experience. With cellular phones, two-way radios, and stereos, the interior of your vehicle no longer offers a quiet place to focus on driving.

These days with everyone's life so busy, paying attention while driving can be difficult. Have you ever been driving down the road and suddenly you notice you don't remember the last three miles you traveled? Although your attention may only be diverted for a split second, the ever-changing variables of the road and other vehicles can make you instantly vulnerable to accidents.

The following rules can help you concentrate on what you should be doing...driving.

- Tie up loose ends before you leave the office.
- If you must travel in heavy traffic areas, plan your travel at times other than rush hour.
- Know the condition of the roads on which you are traveling and drive only as fast as those conditions allow.
- Wear your safety belt at all times.
- Set the radio to a station and leave it there until you stop again.
- Stay alert and drive defensively, with caution.
- Watch out for and anticipate other drivers, pedestrians or children on or near the road.
- Stay out of the other vehicle's blind spot
- Keep a safe distance from other drivers by maintaining a safety cushion around your car.

Safe drivers scan constantly for hazards, predicting how they may be affected by a hazard and pre-determining how to avoid or reduce them.



SEC-OPS SAFETY TAILGATE GUIDE

Driving Distracted?

I have been instructed in the basic hazards of this equipment/procedure as listed above. I understand this proper safe work procedure.

Instructed by: _____

Date: _____

Trainee Names:

_____	_____
_____	_____
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Driving In Wet Weather

This is primarily a safety check-off sheet to inform the employee of the dangers and hazards of performing this job duty. Each employee must complete operator training. .

Minimum Safety Equipment Required: NA General Safety Rules:

- Remember that the streets are more slippery during the first rains of the year than later on when oils have been washed away.
- Check your tires. Worn or damaged tires are dangerous. Check the tire pressure during each gas fill-up.
- Check the windshield wipers. They must be working and not streak the windshield. Replace them prior to the rainy season if necessary.
- Drive with the headlights on – it's the law – if your lights are on your headlights are on. It also makes it easier for other drivers to see you in the rain.
- Keep two hands on the steering wheel. Do not try to eat or take notes while driving.
- Drive at a slower speed than usual. Leave extra space between you and the car in front. Your brakes will not stop you as quickly as in dry conditions, especially if you are pulling a trailer.
- Do not apply the brakes hard. Pump the brakes to avoid skidding as a skidding truck is difficult to control. If you start to skid, steer in the direction of the skid.
- Be careful when climbing in and out of the truck bed to unload equipment and debris; it is easy to slip and fall on the wet surfaces.



SEC-OPS SAFETY TAILGATE GUIDE

Driving Tips to Prevent Skidding

It doesn't matter what you drive - if you lose control on a slick road and start to skid it is scary.

Even with better roads, better tires, and anti-lock brakes, a lot of drivers get into accidents because of a skid in bad weather. You or your crew can lose control of your equipment in any weather or road condition, but bad weather can increase their chances of skidding as much as 10 times.

The only way you can reduce the chance of skidding is to adjust your driving for bad weather conditions. This means slowing down and giving yourself more time and distance. Here are some tips:

- Reduce speed. Drive slower in rain, and go well below the posted speed limit in snow or ice.
- Allow more time to slow down when approaching other vehicles, intersections, curves, railroad crossings, and the entrance to the job site.
- Give more distance to the vehicles ahead. In wet weather, double your normal following distance.
- Make sure to select the proper gear before going up or downhill.

- Think ahead of the vehicle. Remember that ice forms on bridges before roadways.
- Expect ice beneath underpasses, in the shade, or at higher altitudes.

When the temperature is below freezing, roads that were wet during the day can become icy after the sun goes down.

- When you do have to stop, do it slowly. Never jam on the brakes. Jamming on the breaks will lock the wheels and throw you into a skid. Instead, pump the brakes slowly. If you feel the wheels lock, get off the brake immediately, then pump the pedal again.

Bad weather isn't the only cause of skid conditions. Gravel or sand roads to and from a job site will also increase stopping distance. A fast turn off of a paved road onto sand can throw your vehicle into a skid, or make it impossible to stop in time. Be sure to slow down before driving off the paved roadway.



SEC-OPS SAFETY TAILGATE GUIDE

Driving Vehicles and Moving Equipment Safely

Many workplace injuries and deaths involve vehicles and moving equipment, but sometimes this equipment is essential to the work operation. All vehicle and equipment operators should be trained, competent, and safety-minded to avoid costly accidents and injuries. Before operation, drivers should carefully read the operator's manual and observe the operating, maintenance, and safety instructions.

Provisions that operators should consider:

- Get enough rest.
- Take occasional breaks, especially on hot days, to reduce fatigue.
- Vehicle operation should be limited or avoided when drivers are ill or taking medications that can affect alertness.
- Dress appropriately for the weather and work conditions, including head and eye protection. (If the vehicle doesn't have a protective cab, dust respirator and acoustic earmuffs or plugs may be required.)
- Before driving, seat belts should be securely fastened, even if the vehicle has roll over protection (ROPs).
- No one should ride on any part of a moving vehicle, except areas intended for transport. If there are no passenger seats, there should be no riders.
- See to it that everyone is at a safe distance from the equipment before moving.
- Only those with a driver's license should drive equipment on public roads.
- Vehicle ground speed should match operating conditions. Speed should be cut in turns, when near ditches and obstacles, on rough, hilly or muddy ground, and when visibility is poor.
- All workers should be warned not to approach or get on equipment that is under power.

How Operators Should Shut Down Machinery

When the vehicle is stopped, brakes should be set securely, using park lock, and remove keys to keep unauthorized persons or children from restarting the machinery. Operators should disengage the power take off, keeping shields and guards in place, and turn off the engine before unclogging, refueling or working on any power-driven machine.

Other workers can avoid danger from moving equipment by staying alert, out of the way, and by never walking under or alongside moving equipment. As an added safety precaution, a first-aid kit with emergency numbers should be kept in the vehicle or close enough for quick access.



SEC-OPS SAFETY TAILGATE GUIDE

Earthquake Safety

According to the US Geological Survey, there is a 60% chance that a 6.7 magnitude or greater earthquake will occur in the next 30 years. An earthquake of this size can pose an immediate hazard to worker safety, strain public services and disrupt business. The best way to survive an earthquake, or any other emergency, safely is to prepare, plan, and practice.

First, prepare your workplace for an earthquake. Large equipment such as boilers, tanks, and machines need to be secured properly so they will not fall over in an earthquake. Furniture such as bookshelves and file cabinets along with storage racks and shelving should be strapped or attached to the wall to keep it stable and upright. Survey your workspace to make sure that heavy items are stored at lower heights or secured so they won't fall. Photos and pictures should be hung onto the wall with screws or earthquake "j" clips. Keep doors, exits, and aisle ways clear at all times for quick access evacuations. Keep areas under desks and tables uncluttered to make room to take cover in an earthquake. Store chemicals properly and in compatible groups.

Gather emergency supplies for the workplace. Fire extinguishers should be charged and inspected monthly so they are always ready to use. Periodically test fire alarms, sprinklers, and emergency lighting. Keep flashlights, a radio, extra batteries, and a first aid kit on hand at all times. Consider stockpiling food, water, blankets, and sanitary supplies such as toilet paper and portable toilets. Keep enough supplies for the number of workers that may need to shelter or work at your facility after an earthquake. Prepare personal emergency supplies for your desk and your car, including comfortable clothes and shoes, a flashlight and batteries, first aid kit, food, water, and necessary medications.

Make an emergency plan at work and at home. Businesses must have an emergency evacuation plan that details how employees will evacuate from the building, where they will meet, how to account for everyone, and how to get further instructions to act. Current emergency contact phone numbers for all employees and management are critical in an emergency. Businesses should also list and prioritize their functions in a Business Continuity Plan (BCP) that ensures access to the people, materials, and other supplies needed to continue work after an earthquake.

Workers should have family emergency plans in place at home in case they are stranded at work or required to work after an earthquake. Keep enough emergency supplies on hand to maintain your family for at least 3 days. Make lists of emergency contact phone numbers and determine a meeting place for the family after an emergency.

Finally, practice and train on your emergency procedures. Practice emergency evacuations. Get training on first aid and CPR techniques. Train and remember to Duck, Cover and Hold in an earthquake. During an earthquake, duck or drop down on the floor. Take cover under a sturdy desk or table and hold on to it so that you can move with it during the shaking. If you cannot take cover, stand against an interior wall and protect your head and neck with your arms. Practice your business recovery procedures by inspecting and restarting equipment and computers in the proper and prioritized order.

Earthquakes aren't planned, but YOU can plan and practice to survive!



SEC-OPS SAFETY TAILGATE GUIDE

Emergency Eye Wash & Deluge Showers

Let's hope you never need one, but if you do, let's hope it's clean and accessible. If you get foreign particles in your eyes or a chemical spill on your body, an emergency eyewash station or deluge shower is the most important initial step in first-aid treatment. Chemical burns to the eye are among the most urgent of emergencies.

An eyewash/shower is required if:

- The Material Safety Data Sheet indicates a chemical in use is caustic, toxic, or corrosive.
- The MSDS informs that serious eye damage may result.
- Warnings such as "causes chemical burns" or "causes permanent eye damage" are posted on container labels.

Eyewash/showers in addition must have the following:

- Pure clean water
- Hands free operation
- Constant water flow rate for a full 15 minutes
- Highly visible markings and signs
- Unobstructed access

Accessibility:

The single most important treatment for chemically-burned eyes is copious irrigation within seconds of injury. Victims should not have to climb over or around obstacles to find the eyewash station.

Clean, Functional Equipment:

Deluge showers should be inspected often to insure they function properly with adequate water flow, and are clean and sanitary. Portable eyewash units are an option in areas where plumbed in water is not accessible or of high enough quality. Portable units also need an anti-bacterial additive to ensure proper water sanitation. Flushing with any water is better than none, but purified water reduces potential for secondary eye infections.

Training in Proper Use:

Employees who are exposed to possible chemical splashes must know in advance how to use an eyewash/deluge station properly:

- Immediately after the accident, flood the eye with water or eyewash solution, using fingers to keep the eye open as wide as possible.
- Water may be colder than body temperature, which can be uncomfortable, but it is imperative to irrigate for the recommended period of time.
- Roll the eyeball as much as possible, to remove any loose particles retained under the eyelids. Do not put anything except water into the eyes to remove particles.
- The eyes should be irrigated for at least 15 minutes, and the victim transported to a medical facility immediately.
- Continue irrigation of eyes during transport. The best way to accomplish this may be to have a portable eye-wash system ready, which can be carried along.

It's easy to forget about eye-wash stations or showers until they are needed in an emergency. Don't let yours become buried or covered with dust. It could save your sight!



SEC-OPS SAFETY TAILGATE GUIDE

Ergonomics: Breaks, Rest Periods & Stretches

Ergonomic injury risk factors include forceful movements, repetitive motions, awkward postures, and lack of rest. Rest periods give the body time to recover from work; break time exercises and stretches strengthen the body. Workers should think of themselves as Industrial Athletes; athletes wouldn't participate in a sport without proper rest and warm-up, so use the same preparation on the job.

Maintaining overall health reduces your risk of injury. Get a good night's sleep to rest your body and maintain alertness. Eat healthy foods and drink fluids to boost energy and stay hydrated. Aerobic exercise and weight training increase strength and vitality. Stretching, yoga, and Pilates improve flexibility and build core body strength.

Pay attention to signs of discomfort and fatigue on the job; these are warning signs from your body. As muscles tire during a work task, slouching can lead to poor posture, sloppy, uncontrolled movements, and injuries. Rest breaks mean recovery for the body. During a job task, take micro-breaks lasting 10-15 seconds every ten minutes. Take mini-breaks lasting 3-5 minutes every thirty to sixty minutes. These short breaks give the body a rest, reduce discomfort, and improve your performance.

Alternate your work activities and postures throughout the day. Rotating tasks may seem inefficient, but the rest and use of different muscle groups increases energy and maintains productivity. For example, if you are a landscaper, don't trim all of the shrubs, sweep up the trimmings, and then leaf-blow the whole area; work in sections and trim, sweep, and leaf-blow in alternating tasks. If you work at a single workstation and job task all day, move into different postures while you work: first standing, then standing with one foot resting on a stool, then sitting.

Stretches help you warm-up before work and relax during breaks; they increase flexibility and boost blood flow and oxygen to muscles. Perform stretches slowly and gently; avoid extreme postures and stop stretching if you feel pain or discomfort. Physical and Occupational Therapists are the most qualified individuals to generate a specific stretching and warm-up program.

Overall fitness and flexibility, adequate sleep, task rotation, and rest breaks can help limit the overall risk of injury.



SEC-OPS SAFETY TAILGATE GUIDE

Excavations

This is primarily a safety check-off sheet to inform the employee of the dangers and hazards of combustible materials. Each employee must be trained on these hazards to avoid injury.

Minimum Safety Equipment Required: Hard Hats

Trenching and excavation work presents a serious risk to all employees. The greatest risk is the cave-in of a trench or excavation. Cave-in accidents are much more likely to result in worker fatalities than any other excavation-related accidents. Other hazards include contact with buried utilities. Because of the hazards associated with excavation work, the following safe work practices and procedures must be implemented and enforced at all company construction projects:

- Remove or support all surface encumbrances whenever their location creates a hazard to employees.
- Identify underground installation (e.g., sewer, utility, fuel) locations prior to opening an excavation. Contact utility companies or owners to advise them on the proposed work and ask for the locations of utility underground installations prior to opening an excavation.
- Protect, support, or remove underground installations, as necessary, to safeguard employees working in open excavations.
- Structural ramps used by employees as a means of access or a competent person must design egress from excavations.
- A competent person qualified in structural design must design structural ramps for access and egress of equipment.
- All excavations or trenches that are 5 ft or more in depth must have a stairway, ladder, ramp, or other safe means of access and egress within 25 ft (7.6 m) of travel in any direction.
- The edges of a trench or excavation must be barricaded when the excavation is not readily seen because of plant growth or some other visual barrier.
- No employees are permitted underneath loads handled by lifting or digging equipment.
- A warning system (e.g., barricades, signals, or stop logs) must be used when mobile equipment is operated adjacent to an excavation.
- Testing must be conducted in excavations where oxygen-deficient atmospheres exist or could reasonably be expected to exist before employees are permitted to enter excavations greater than 5 ft in depth.



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Take adequate precautions, such as proper respiratory protection or ventilation, to prevent employee exposure to oxygen-deficient and other hazardous atmospheres.

- Emergency rescue equipment must be readily available where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation.
- Never work in excavations where water has accumulated or is accumulating, unless adequate precautions have been taken to protect you against the hazards posed by water accumulation.
- A competent person must:

Classify soil types to determine sloping and shoring needs. Monitor water removal equipment and operations.

Inspect excavations subject to runoff from heavy rains. Conduct daily inspections of excavations.

- A competent person must conduct inspections of excavations prior to the start of work and as necessary throughout each shift. Inspections must also be made after every rainstorm. Precautions must be taken before employees enter a trench of any depth that shows signs of water accumulation or wall sloughing due to moisture. Preventive precautions include the use of support or shield systems to prevent cave-ins, and the use of water removal pumps.
- Trenches 5 ft or more in depth must be shored or sloped back to an angle of incline required to prevent cave-ins. The angle of incline required varies with differences in the soil type, environmental conditions of exposure, and the application of surcharge loads. Any excavation in unstable soil may require shoring or sloping.
- Backfilling and removal of trench boxes or supports shall progress together from the bottom of the trench. Jacks, supports, or braces shall be released slowly, and in unstable soil, ropes shall be used to pull out the jacks and braces from above and clear of the excavation. All personnel shall be clear of the trench.
- Materials must be placed 2 ft (0.6 m) or more from the edge of the excavation. Precautions must be taken to prevent such materials from falling into the excavation.



SEC-OPS SAFETY TAILGATE GUIDE

Eye and Face Protection - Face Shields

For all-purpose face protection, Face shields are hard to beat they protect the face from splashes, heat, flying particles and other hazards while allowing for plenty of ventilation. They are especially recommended for welding, riveting and operations that involve extreme heat. But It is important to remember that face shields do not protect your eyes-they must be used in combination with goggles or safety glasses.

Face shields protect you from splashes, heat, flying particles and other hazards. A welding helmet is a specialized face shield that protects you from sparks, intense light and splashes of molten metal.

Types of Face shields

Most face shields are constructed of high-strength, flexible plastic such as acetate. Face shields designed for use in a high-impact environment may be made of polycarbonate, the material used in many safety glasses. Wire screen face shields are used in extremely humid environments. Face shields may be equipped with a crown to protect against falling particles or sparks, or a chin scoop to guard against chemical splashes. Some shields are tinted to protect from glare, while others feature glass inserts for the best visibility. Specialty designed face shields can be fitted to hard hats. A variation on the face shield is the welding helmet; a complete face-and-head covering that protects the wearer from sparks, intense light and splashes of molten metal.

Care and Fit

Choose a face shield with adjustable straps that fits snugly but not uncomfortably around your head, without sliding forward or to the side. A face shield should not be uncomfortable to wear. A strap across the top of the head provides support. The shield should cover your face from the forehead to the base of your neck without obstructing your vision. Because face shields are easily scratched, store your shield in a protected area. Replace a scratched face shield before it causes a vision related accident.

Remember, a face shield protects your face, not your eyes. Wearing your safety glasses or goggles along with your face shield is the best way to protect your eyesight.



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Fall Protection

It may seem that a job can be performed more efficiently without spending the time to protect against falls. However, falls remain one of the top causes of fatalities in construction. Workers have fallen off edges of every description, especially floors and roofs, and through openings in floors, roofs, and walls. Fall protection is required whenever a worker faces serious risk of injury, including:

- On structures where a worker could fall more than 7 feet
- On thrust outs, trusses, beams, purlins, and plates at heights over 15 feet
- On a sloped roof

To prevent accidental falls at worksites, guardrails and toe boards or other effective barriers to falls should be used. However, there will be areas where guardrails or other barriers are not feasible. In these cases, workers must use approved personal fall protection systems or positioning devices.

Two basic types of person fall protection systems that require tie off are 1) fall arrest and 2) travel restraint.

Fall arrest systems stop a fall within a few feet of the worker's original position. A full body harness is required with a fall arrest system. The system typically consists of a full body harness, a lanyard, a rope grab, a lifeline, and a lifeline anchor. A fall arrest system must be worn when working on a rolling scaffold that is being moved or when a worker is getting on, working from or getting off suspended access equipment.

A travel restraint system prevents falls by restraining a worker from getting too close to an unprotected edge. This system usually consists of a safety belt or full body harness, a lanyard, a rope grab, a lifeline, and a lifeline anchor.



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Falling Down On the Job

According to the National Safety Council, falls kill more people on the job than any other kind of accident except those involving vehicles. In fact, falls cause one of every five-work-related injuries. About half of these falls are from a higher to a lower level. The other half occurs on level ground. Although the statistics are alarming, the truth is, most Ws can be prevented. A# ft takes is learning to recognize fall hazards and taking steps to prevent them.

Watch for Wet Surfaces

It's easy to slip if you walk fast, turn sharp corners or wear inappropriate shoes. If you must walk on a wet surface, slow down and take short steps to stay balanced. If you work in a hospital, gas station or industrial plant, the work surface can occasionally become wet. Leaving behind a spill-even a minor coffee spill can cause a coworker to slip and fall. When you see water, oil or any type of spill, clean it up right away or mark it with a sign, paper towels or wastebasket; then report it.

Short Cuts Can Be Costly

Because there's so much to get done every day, it's tempting to take short cuts. However, taking a short cut - such as carrying a load too big to see over, instead of making two trips - can be a costly mistake. Make sure you can see where you're going, even if it means an extra trip.

Keep Work Areas Well-Lit and Clean

Always turn on the lights before entering a dark room, even if you're only going in for a minute. Replace light bulbs as soon as they bum out. Clutter in the work area is another common hazard. Tools, boxes, boards, pipes or rope left long around can cause a bad fall. So keep work areas, especially storage rooms and walkways, free of clutter.

Use Ladders Safely

Be sure you have the right ladder for the job. Do you need a small stepladder or an extension ladder? Don't invent climbing equipment. Follow these rules for ladder safety:

- Follow the four-to-one rule: Set the base out of the ladder one foot away from a wall or other support for every four feet of ladder height.
- Be sure the ladder is standing on stable ground and ask someone to hold the base or tie off the ladder securely.
- Make sure a ladder extends three feet beyond the roof of a budding.
- When using a ladder, never climb on the top two rungs.
- Always use nonconductive ladders around electrical hazards.

Makeshift Ladders Are Shifty

It's tempting to use whatever is handy as a makeshift ladder. Standing on top of a trash can to reach something or making a ladder taller by putting a box on top are common fall hazards. Because makeshift ladders are never quite right for the job, you may find yourself overreaching or making other unsafe movements, which can result in a fall.



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Falls

With predictable regularity, falls continue to be a leading cause of accidents and deaths on the job. Falls include those on the same level (floor, ground), as well as from one level to another (stairs, ladders, roofs). Falls are usually caused by two situations - an unsafe action of an individual (hurrying, overreaching, and improper use of equipment) or unsafe condition (poor housekeeping, unguarded opening, and surface conditions).

Good footing is the best way to avoid falls and good housekeeping is the best way to ensure good footing. Trash, wires, and slippery areas caused by water, grease, or oil can cause falls. Watch footing when working on slick flooring and poorly lit areas; where floors are uneven from room to room; and where surfaces are uneven from broken concrete, cracked asphalt or curled rugs.

Always look in the direction you are walking. Avoid carrying large objects that may block your view of a safe walking path. Walk slowly on stairs and use handrails to secure your step.

Cover, guard, or mark spills, potholes, and floor openings. Protect them with warning cones, guardrails, or toe boards.

Makeshift ladders or incorrect ladder selection can cause falls. Choose the ladder that's made for the job. Be sure it's in good condition and placed securely. Face the ladder and keep both hands free while climbing.

Preventing falls is a matter of common sense - Watch where you're walking. Take careful steps when you walk and choose and use equipment properly.



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First Aid for Burns

For First Degree Burns (Sun Burn, Redness):

- Cool the area right away. Place the affected area in a container of cold water or under cold running water. Do this for at least 15 minutes or until the pain is relieved. This will also reduce the amount of skin damage. (If the affected area is dirty, gently wash it with soapy water first.)
- Do not apply ice or cold water for too long a time. This may result in complete numbness leading to frostbite.
- Keep the area uncovered and elevated, if possible. Apply a dry dressing, if necessary.
- Do not use butter or other ointments (Example: Vaseline).
- Avoid using local anesthetic sprays and creams. They can slow healing and may lead to allergic reactions in some people.
- Call your doctor if after 2 days you show signs of infection (fever of 101 degrees F or higher, chills, increased redness, swelling, or pus in the infected area) or if the affected area is still painful.
- Take aspirin, acetaminophen, ibuprofen, naproxen sodium to relieve pain. (Note: Do not give aspirin or any medication containing salicylates to anyone 19 years of age or younger, unless a doctor tells you to.)

For Second Degree Burns (that are not extensive and less than 3" in diameter):

- Immerse the affected area in cold (not ice) water until the pain subsides.
- Dip clean cloths in cold water, wring them out and apply them over and over again to the burned area for as long as an hour. Blot the area dry. Do not rub.
- Do not break any blisters that have formed.
- Avoid applying antiseptic sprays, ointments, and creams.
- Once dried, dress the area with a single layer of loose gauze that does not stick to the skin. Hold in place with bandage tape that is placed well away from the burned area.
- Change the dressing the next day and every two days after that.
- Prop the burnt area higher than the rest of the body, if possible.

Call your doctor if there are signs of infection (fever of 101 degrees F or higher, chills, increased redness and swelling, and pus) or if the burn shows no sign of improvement after 2 days.

All third-degree burns require medical treatment.



- Minor third-degree burns can be treated in a doctor's office, but all others should be considered a medical emergency that requires hospital treatment, usually in a burn unit.
- Call 911, or get the person to an emergency room as soon as possible.
- If the person is on fire, do not let him or her run. Smother any flames with a blanket, jacket, or water, if available, or have the victim use the "stop, drop, and roll" method.
- Remove any clothing or jewelry from the injured area, but DO NOT remove clothing if it is stuck to the burn.
- Very briefly immerse the burned area in cold water or use a clean towel or wash cloth moistened with cold water to stop the burning process.
- Don't hold the burned area in cold water for too long or you will cool down the body too much.
- Don't use ice or ice water because they will further damage the tissue.
- Do not break open any blisters, or there will be a greater risk of infection. If the blisters are open, don't remove any clothing that might be stuck to the burn, and don't run water over the burn. This will increase the risk of shock.
- Whether the blisters are broken or not, you can place a dry, sterile gauze pad over the burn, but do not use any bandages with adhesive. If the burned area is larger, lightly drape a clean sheet over it to protect it until you get medical treatment. It is important for the bandage to be loose so the burn gets air.
- Never apply butter, oils, or burn ointments. They make it more difficult for the burn to heal and can actually make the burn worse because the heat can't escape.
- Arms or legs that are burned should be kept raised to reduce the amount of swelling. If the face or neck is burned, raise the person's head slightly. This will also help if he or she is having trouble breathing.
- If the person appears to be going into shock, lay him or her flat on the ground, raise the feet around 12 inches (30 cm), and call for medical help. You can cover the patient with a blanket to keep him or her warm.
- Do not give a person who is in shock anything to drink. Otherwise, you can provide the patient with small sips of clear liquid, such as water or juice.

Chemical burns are treated a little differently.

For liquid chemicals:

- First remove any clothing or other items that the chemicals have spilled on.
- Thoroughly wash any chemicals off the skin under running water for 15 to 30 minutes.



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For dry chemicals:

- Use large amounts of water to flush the chemicals from the skin. Never use small amounts of water because they may actually activate the chemicals.
- If no water is available, use a clean cloth to brush any dry chemicals off the skin. Loosely cover the burn with a dry, sterile bandage, and see a doctor for further treatment.
- Different chemicals have different effects, so you should always check the chemical label, if possible, for additional directions.
- Always see a doctor if the chemicals have gotten into the eyes or mouth.

Moderate and critical third-degree burns require hospitalization. The body loses a great deal of fluid through the burned area, so replacement fluids are given through an intravenous (IV) line, which is a tube placed into a vein. If the lungs are damaged, or breathing is difficult, a tube is inserted into the throat to help with breathing. The patient will need to take antibiotics to protect the burned area from infection, as well as a prescription pain medication.



SEC-OPS SAFETY TAILGATE GUIDE

First Aid for Choke Saving

Anyone who cannot talk, cough or breath may have an airway obstruction. First aid for choking:

- Ask the victim "Are you choking? Can you talk?" If they are choking (can't talk):
- Tell the victim you are trained to help them.
- Go behind the victim and place your fist of one hand, one finger above the naval (belly button) grab your fist with the other hand, pull towards the abdomen with quick upward thrusts until the object is removed or the victim goes unconscious.
- Try to keep your elbows out as you perform the thrusts as if you squeeze too hard, you may damage or break a rib. (It's most important that you do not perform this function anywhere near the bottom of the sternum, as this may break the Xiphoid process and lacerate the liver)
- If the victim is pregnant or you are unable to get your arms around their belly, your need to perform chest thrusts. This is done by putting your arms under the victim's armpits, bringing your fist to the center of the chest, covering your fist with the other hand and quickly pulling straight back. The above maneuver is performed on anyone over the age of one.

If the victim becomes unconscious from choking: CALL 911

- Lay the victim on their back, then straddle the victim's thighs and place your hands on top of each other at the naval and complete five upward thrusts.
- When completed, go up to the victim's mouth and perform a finger sweep. This is accomplished by using the index finger and sweeping from one cheek, down the throat, to the other cheek in a hooking motion. This will enable you to grasp the object and pull it out.

If the victim becomes unconscious from choking and the victim is under eight years of age:

- Do not do a finger sweep, as our fingers are so big that this may push the object further into the throat. Instead, use a pinching motion to grasp the object.
- If you are unable to dislodge the object, tilt the head back using the head tilt, chin lift and attempt to give a breath.
- If the air will not go in, reposition the head and try again.
- If the air still will not go in, continue with the abdominal thrusts until the object is dislodged or medical help arrives.



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First Aid for Eye Injuries

Foreign Body in the Eye

Particles of dust or grit or loose lashes are the most common foreign bodies found in the eye. In most cases, these can be easily removed. **DO NOT ATTEMPT** to remove a foreign body if it is on the colored part of the eye or embedded in the eyeball. In these cases, **SEEK MEDICAL AID**.

Treatment:

- Advise the patient not to rub the eye.
- Open the eye, ask the victim to look right, left, up and down so that you can examine the eye in detail.
- If you can see the foreign body, wash it out by pouring water from a jug into the affected eye, draining away from the good eye.
- If this is unsuccessful, if there is no water available, and the foreign body is **NOT STICKING** to the eyeball, lift it out, using the damp corner of a clean handkerchief.
- If you cannot remove the foreign body, cover the eye with an eye pad, secured lightly in position, and seek medical aid.

Chemicals in the Eye

Treatment:

- Wash away the chemical as quickly as possible by holding the affected side of the face under cold water, so that the water drains away from the face. Continue this for 10 minutes.
- If washing is not possible, lay the casualty down, protect the uninjured eye, and gently pour water into the open affected eye to drain away the chemical.
- Lightly dress the eye with sterile eye pad or clean cloth.
- Remove to hospital immediately.

Blow to the Eye

Treatment:

- If severe, if there is loss of vision, seek medical assistance.
- While waiting, cover the eye with clean dressing or clean folded handkerchief and keep the patient lying flat and quiet.



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First Aid for Shock

Anytime someone has an injury; you must treat them for shock. Shock is the failure of the cardiovascular system to circulate enough blood to the vital organs. When a victim goes into shock, the body tries to heal itself by slowing circulation.

To help a victim who is in shock:

- Place them in a lying down position with the legs elevated 8-12 inches, as this will increase the circulation
- If the victim has a head, neck or back injury, leave them lying flat. (If you elevate the legs, you may do more damage to the spine)
- Cover them with a blanket to conserve body heat.
- If the victim has any difficulty in breathing, place them in a reclining position; this may improve their breathing.
- Monitor the vital signs closely and make sure that professional medical help are on the way.



SEC-OPS SAFETY TAILGATE GUIDE

Flagger Safety

According to the OSHA Construction Safety Orders, flaggers are required at locations on a road construction or maintenance site where barricades and warning signs can't control the moving traffic. In these required situations, flaggers must be placed in relation to the equipment or operation so they can give effective warning.

What should a flagger wear?

A flagger must wear warning clothes in specific, highly visible colors. They can wear a vest, jacket or shirt in colors of orange, strong yellow-green or fluorescent versions of these. These garments must be worn rain or shine. If it's dark, the flagger should be wearing reflectorized garments, visible from a minimum distance of 1,000 feet. The flagger's station should be lit by portable lighting so the flagger will be clearly visible to approaching traffic.

What training is required for a flagger?

Before being assigned as a flagger, the individual must be trained in the proper fundamentals of flagging moving traffic. Training, instruction, and signaling directions used by flaggers should conform to the "Manual of Traffic Controls for Construction and Maintenance Work Zones," published by the State Department of Transportation.

Training should take into account the particular worksite condition and include the following:

- The Flagger equipment which must be used
- The layout of the work zone and flagging station
- Methods to signal traffic to stop, proceed or slow down
- Methods of communicating with workers in the work zone
- Methods of communicating with another flagger
- Trainee demonstration of proper flagging methods
- How to handle emergency situations
- Methods of dealing with hostile drivers
- Flagging procedures when only a single flagger is used



SEC-OPS SAFETY TAILGATE GUIDE

Hand Safety – Avoiding Finger, Hand and Wrist Injuries

Whether you're a machine operator, a lab technician, an office worker – and kind of worker, for that matter – your hands are one of your most important "instruments." Yet, over a quarter of a million people suffer serious (and often disabling) hand injuries each year. By recognizing hand hazards, following established safety guidelines and using protective guards, shields, gloves and other personal protective devices as needed, you can save your hands from injury and yourself from unnecessary disability.

Recognizing Hand Hazards

One of the most serious yet common causes of hand injury is the use of unprotected or faulty machinery or equipment. Failure to use push-sticks, guards, kill-switches, or to follow appropriate lock-out procedures are among the leading industrial hand hazards. Wearing jewelry, gloves, or loose-fitting clothing around moving parts can also lead to injury. Chemicals, corrosives, and other irritating substances can cause burns and skin inflammation unless appropriate hand protection is used. Temperature extremes and electrical hazards are other common causes of hand injuries. In addition, constant, repetitive motion (as in assembly-line work or painting) can cause undue stress on the wrists and hands unless protective measures are taken. The following list provides a guideline for hand safety that can help you protect your hands from injury and disability.

Hand Protection Checklist:

- * Be alert to potential hand hazards before an accident can happen.
- * Be alert to possible unguarded pinch points.
- * Always use push-sticks, guards, shields, and other protective devices when appropriate. Do not remove guards.
- * Use brushes to wipe away debris.
- * Inspect equipment and machinery before and after tasks to make sure that it is in good operating condition.
- * Disconnect power and follow established lock-out procedures before repairing or cleaning machinery.
- * Never wear gloves, jewelry, or loose clothing when working with moving machine parts.
- * Use the appropriate personal protective equipment – gloves, guards, forearm cuffs, barrier creams – for the specific tasks you are performing.
- * When wearing gloves, be sure they fit properly and are rated for the specific task you are performing.
- * Select tools designed to keep wrists straight to help avoid repetitive motion/overuse problems.



SEC-OPS SAFETY TAILGATE GUIDE

Foot Care - Blisters

Three factors cause blisters to form: heat, moisture, and friction. Blisters occur when feet get hot & sweaty, making the sock stick to the foot. The sock, foot, and shoe rub against each other causing fluid to form between layers of skin. Even though the fluid-filled cushioning helps to protect the area, blisters can be quite painful.

Prevention of blisters is ideal. Here are some helpful tips:

- Walk during the cooler times of the day to keep feet from getting too hot
- Reduce foot moisture by changing socks mid-walk or use double-layer socks
- Switch to an acrylic blend or wool sock to help wick away perspiration
- Check the inside of shoes for rough or worn areas ahead of time
- Use “mole skin” on known friction points before the walk begins
- Replace worn shoes, shopping later in the day
- Get your feet fit properly with a “stability” running or cross-trainer shoe
- Break in new shoes on shorter walks to ensure good fit

If a blister forms, leave it alone. The body will gradually reabsorb the fluid. If a blister forms on a walk and becomes painful, protect it from getting worse by using a non-medicated gel “donut” around the blister to help take pressure off the area. Do NOT intentionally puncture or drain the blister. Some will pop spontaneously, but either can become infected. Signs of infection include: generalized redness, streaks of red going up into the foot or leg, warmth in the surrounding area, pus, or yellowish fluid draining from the blister. These are symptoms that require medical attention.

Diabetics need to see their podiatrist or primary doctor whenever a blister appears and not try to treat the problem at home. If you have diabetes and a blister, call the doctor’s office, identify yourself as a diabetic, and describe the problem. Most often, the doctor will see you within 24 hours. If not, be assertive. If it looks infected, and you can’t be seen that day or next, then go to the emergency room. It is not worth the risk to wait for an appointment or until the next day the office is open. Blisters in diabetics become infected quickly and can lead to amputation in some situations.

Use the tips listed above on a regular basis. If blisters continue to reoccur, then seek the help of a professional.



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Foot Care - Calluses

Many people wonder what causes the development of skin calluses along the bottom edge of the heels. The normally soft, smooth texture can become roughened with increased friction. This may be due to going barefoot, wearing sandals, and even improper shoe fit. Sometimes, it has more to do with an unusual motion of the foot, due to abnormal bony foot structure, or the way in which a person walks (the gait).

A callus is a thickening of the skin. It may appear to be yellowed, layered or even scaly due to excessive dryness. Peeling can also be present and may indicate an athlete's foot infection. Occasionally the skin becomes so thickened it cracks and forms a fissure. Heel fissures can become infected and may even bleed, causing tenderness or pain, requiring the help of a podiatrist.

Heel calluses that occur primarily during the summer months can usually be managed by using a moisturizing cream such as "Eucerin" to help soften the callus, followed with gentle use of a pumice stone after bathing. "Bag Balm" is another product that helps with softening. Neither of these products should be applied in areas when cracking is deep or when bleeding is present. The use of medicated over-the-counter products containing salicylic acid is discouraged. The acid does not know where the callus stops and the healthy tissue begins.

If heel callus occurs after a purchase of shoes, it probably is due to the shoe or the fit of the shoe itself. This can be determined by not wearing the new shoes for a week or so to see if the callus begins to go away. When buying shoes check the return policy beforehand since some stores will allow you to exchange them for a different size or style.

Heel calluses that remain year round are more likely to be related to the foot structure and its motion. This can be addressed by seeing a podiatrist or DPM so that the origin of the cause can be determined. This is often treated with a customized orthotic (a device worn in your shoes) which helps restore foot position and control abnormal foot motion. A podiatrist can also use sterilized tools to reduce the callus without pain -- something that should NEVER be attempted at home due to the risk of infection and injury.

Whether your heel calluses are more of a cosmetic issue or that of pain, they can be easily treated. Try to determine why it developed, then take the right steps to restoring the bottom of your heel to the smooth, soft skin it should be!



SEC-OPS SAFETY TAILGATE GUIDE

Foot Pain

Several things contribute to foot pain: inherited predisposition to foot problems, the type of ground or flooring you are on, the amount of time spent on your feet, and the style of the shoe worn.

Though you may not be able to control the hours spent on your feet, the flooring, or your foot structure, you can pay attention to your shoe style and add in comfort measures. A flat shoe will allow your body weight to be evenly distributed across the entire sole of the foot. Women's high heeled shoes and men's Western boots have heels that force more body weight onto the ball of the foot, producing fatigue and possible pain in already existing foot problems. Try to keep the heel height under one to one and a half inches whenever possible.

Soft leather shoes and sandals offer little to no support, so look for a shoe that resists twisting when grasped at the toe and heel (you should not be able to wring it out like a sponge). If you need ankle support, go for the high topped athletic shoes over the lower cut ones. If you will be on your feet -- at a wedding -- for a short time, wear what you like, but if you are planning a trip to Europe this summer, you will appreciate having a good pair of cross trainers or walking shoes along.

There are many over-the-counter products available in drug stores for added support and cushioning. Be cautious when using medicated ones, since they contain an acid and may eat into healthy tissue. Look for those made of silicon for protection of prominent bony areas to prevent tender spots and blisters. Insoles and silicon heel cups can also aide in comfort, but be sure to have them with you when trying on new shoes, or the shoes will feel too tight when you add them in afterwards.

Buy shoes towards the end of the day, when your feet are at their largest, or after participating in activities. Keep in mind that our feet can swell a half size later in the day. On hot days, they can swell even more.

Selecting the right footwear vs. style is not always an easy choice, but when you look at the amount of time you'll be on your feet, the how hot the climate is, and what type of flooring you'll be walking on, you may want to consider comfort instead of style. If you already have foot concerns or foot conditions, you will stand a better chance of not aggravating them further.

The choice is up to you!



SEC-OPS SAFETY TAILGATE GUIDE

Foot Safety - It's a Shoe in for Safety

Employees seldom complain about their feet -- they just keep trudging along in silent discomfort. Foot health is the responsibility of both management and employees. Even though foot injuries are not as prevalent as other types of injury, there is a definite correlation between the feet and symptoms in the knees, hips, and low back. In fact, neglecting the feet can result in overall body fatigue and create the potential for other types of fatigue-related injury.

A 2001 survey of 360 manufacturing employees showed:

~ 45% do have foot pain on a regular basis

~ 23% have a tendency to twist their ankles

~ 51% have knee pain from time to time

~ 56% claim to feel it in their back when they've been on their feet all day.

Workers may be exposed to various hazardous conditions on the job, including slippery surfaces, climbing hazards, handling or working around heavy equipment and machinery and working around electricity. These different working conditions may require different safety footwear to protect the foot, and the worker, from injury.

Choose the Right Shoe

When choosing safety footwear, you must select the legally approved shoe or boot required for the job activity, equipment, and situation. Some situations may require safety toed, or steel toed boots to protect the top part of the foot. These safety toed shoes provide extra protection over the top of the foot and can make a difference in preventing an injury in an accident. The best way to buy work shoes is to get fit at a safety shoe store.

No Shoes, No Work!

Safety shoes or boots with impact protection should be worn when workers carry or handle materials such as heavy packages, objects, parts or tools and for other activities where objects may fall onto the foot. Workers should be required to wear safety shoes or boots with impact protection when their work involves wheeling carts that carry heavy materials; handling heavy, bulky tools (paper, fabric, carpet, lumber etc.); working around heavy pipes or in situations where a heavy object may roll over a worker's foot.

Safety shoes or boots with puncture protection should be required where a worker could step on sharp objects such as nails, wires, tacks, screws, large staples, scrap metal, etc. And special types of insulating shoes or conductive shoes may be necessary for certain types of electrical work.



SEC-OPS SAFETY TAILGATE GUIDE

Hearing Protection

Noise is unwanted sound that can effect job performance, safety, and your health. Psychological effects of noise include annoyance and disruption of concentration. Physical effects include loss of hearing, pain, nausea, and interference with communications when the exposure is severe.

Hearing protection is essential when noise exposures can't be controlled at their source. Both earplugs and earmuffs provide a physical barrier that reduces inner ear noise levels inner ear and prevent hearing loss from occurring. However, people often resist wearing these or use them incorrectly. Employees resist wearing hearing protection more than any other type of personal protective equipment. One reason is they don't think they really need it. But hearing loss occurs so gradually (even in intense exposures) that by the time you notice it, irreversible damage has already occurred.

Another reason for not wearing hearing protection is that it can feel uncomfortable. Sometimes workers "spring" the muffs so they don't seal properly against the head, or snip off the inner portion of ear plugs leaving only the outer end to fool their supervisor. If you feel the need to do this, see your supervisor about obtaining a different type or style that fits you correctly and comfortably.

Slight initial discomfort may be expected when a good seal between the surface of the skin and the surface of the ear protector is made. The amount of protection you obtain depends on obtaining a good seal and even a small leak can substantially reduce the effectiveness of the protector. Remember to check the seal several times each day. Protectors - especially ear plugs - have a tendency to work loose as a result of talking or chewing, and must be resealed occasionally.

Properly designed, fitted, and clean ear protectors will cause no more discomfort to most workers than wearing a pair of safety glasses. Earplugs are made of soft material such a neoprene to prevent injury to the ear canal. Skin irritations, injured eardrums, or other adverse reactions from using ear plugs are very rare if they are kept reasonably clean.

There are many different styles, types, and brands of ear protectors available, but when correctly fitted, they all provide similar levels of protection. The best hearing protector for you is one that fits correctly so that you can wear it properly.

Some signs that you should be wearing hearing protection include:

- If it is necessary for you to speak in a very loud voice, or shout directly into the ear of a person to be understood, it is likely that the noise level is high enough to require hearing protection.
- If you have roaring or ringing noises in your ears at the end of the workday, you are probably being exposed to too much noise.
- If speech or music sounds muffled to you after you leave work, but it sounds fairly clear in the morning when you return to work, you are being exposed to noise levels that are causing a temporary hearing loss. In time, this can become permanent if you do not take care.

HOW LOUD IS LOUD?



SEC-OPS SAFETY TAILGATE GUIDE

Most of us take our sense of hearing for granted—we assume that we hear what everyone else hears. Loss of hearing may not be realized until a friend or spouse screams in frustration, "Why don't you ever listen to me!!" This is because hearing loss is usually gradual. Normally, it doesn't hurt, so we don't know it's happening. It doesn't annoy us like losing our eyesight. In fact, it is sometimes a blessing to tune out all the clatter and noise of the city and workplace.

Yet our ability to hear when we want to is precious and must be protected. Employers often reduce the amount of noise in the workplace by enclosing or muffling loud machinery, but they usually can't eliminate it entirely. Employers may also rotate workers out of an area so they needn't experience a full work day of excessive noise exposure. Whatever the length of time you work in an area with high noise levels, you are probably required to wear a type of hearing protection. Some people consider this a nuisance. The more you know about those ears of yours; however, the more likely you will take responsibility for protecting them.

Do you realize that noise exposure off the job can also damage your hearing? The critical sound level when hearing protection should be worn is 85 decibels (dBA), established for an 8-hour time weighted average.

20	A faint whisper
30-40	Quiet pleasant sounds, a bird chirping
40-50	Quiet to normal office sounds
50-60	Normal conversation
70-90	Heavy machinery, electric motors, garbage disposal, city traffic
100-120	Jack hammer, power saw, motorcycle, lawn mower, rock music
140+	Nearly jet engine, gunshot (this level causes pain)

The louder and longer your exposure, whether at work, at home, or during recreation, the more likely your hearing will be damaged. If you want to have a sense of "how loud is loud," the following examples, along with their decibel rating, will give you an idea:

Many disposable or reusable plugs are available and most of these reduce noise by about 20-30 decibels. The noise reduction rating (NRR) is usually marked on the package or on the box if they come in bulk. However, since the NRR is established in a laboratory with perfectly fitted plugs, experts recommend that the true rating is generally about 7 decibels less than indicated. Hearing protectors of the ear muff type are usually closer to the actual NRR.

Some degree of hearing loss is part of the normal aging process, but young people should also be warned about the dangers of a rock concert, boom box, lawn mower or loud car engine. Of course they may not listen to you—but if they have permanent hearing loss, they won't be able to listen to anyone, will they? Hearing Protection - Use it!



SEC-OPS SAFETY TAILGATE GUIDE

Hearing Protection - Earmuffs

"What did you say? Let me get my earmuffs on, so I can hear you." This remark may seem strange if you're not in the habit of wearing hearing protection. But in a noisy workplace where you have to strain to hear someone two feet away, hearing protection is not only necessary to protect your hearing, it can also help you hear the sounds you want to hear. Earmuffs and other protective devices enable you to pick out sounds from a background of noise in much the same way that sunglasses help you see objects in glaring light.

Earmuffs - Who Needs Them?

If your employer has made earmuffs or earplugs available to you, the usual noise level in your workplace probably exceeds 85 decibels – that's loud enough to damage your hearing over time. When there is a choice of hearing protectors, the choice you make depends on several factors, such as comfort, loudness of noise, and whether the noise is consistently loud. Earmuffs are easier to put on and take off than earplugs, and so are the best choices if you do need them all the time. However they are bulky and relatively expensive, and may not fit well with other protective equipment such as hard hats, respirators and eyeglasses. If you work in a very noisy environment, you may need to use earmuffs and earplugs together for added protection.

The Typical Earmuff

Earmuffs consist of cushioned cups attached to a headband that may be worn over the head, behind the neck or under the chin. They should adjust up and down, in and out, for a good fit. Specialized models are available: cap-mounted earmuffs can be attached to safety hats; dielectric earmuffs (for workers exposed to high voltage) do not have metal parts; and electronic earmuffs reduce hazardous noises while magnifying sounds you need, to hear. Earmuffs reduce noise about 20 to 30 decibels; the Noise Reduction Rating (NRR) on your earmuffs indicates their effectiveness.

Effectiveness Depends on Fit

Your earmuffs should fit comfortably, the headband neither too tight nor too slack. To work right, earmuffs must form a seal around the ears, completely enclosing them, without pinching the earlobes. No hair or clothing should stick out from under the cups. Your eyeglasses may need to be modified to fit with earmuffs. Follow manufacturer's instructions for cleaning and storage, and replace hardened, cracked or worn cushions.

When properly used, alone or in combination with earplugs, earmuffs can be an effective way to protect your hearing. For the best protection, have your hearing tested at least once a year and compared to previous tests, understand the effects of noise on your hearing, and wear your earmuffs whenever your job requires them.



SEC-OPS SAFETY TAILGATE GUIDE

Hearing Protection - Earplugs

Does your company provide you with earplugs or other hearing protection? If so, you may be wondering if they are necessary or if you will be able to communicate when wearing them. The good news is that earplugs do not lessen your ability to hear your coworkers; if you need earplugs, your workplace is so noisy you can't hear them anyway. Earplugs can screen out background noise (in much the same way that sunglasses screen out background glare) actually making it easier for you to hear sounds such as the human voice.

Types of Earplugs

There are three types of earplugs:

1. Formable earplugs made of waxed cotton or acoustical fibers can be molded to fit your own ear. They are disposable. Semi-disposal plugs of molded foam are used for up to a week.
2. Pre-molded inserts of soft silicone rubber or plastic are reusable, some come in different sizes.
3. Custom-molded earplugs are molded to fit the individual; silicone rubber or plastic molding compound is placed in each ear and allowed to set. The set compound may be used as earplugs or as molds for ear-plugs.

Effectiveness

Earplugs may reduce noise levels by up to 30 decibels. That is, if the noise in your environment is 100 decibels, your earplugs could effectively reduce it to 70 decibels. When choosing earplugs, check the noise Reduction Rating (NRR) on the package. The higher the number, the better the protection.

Fit and Maintenance

To work properly, earplugs must completely fill the ear canal. When inserting earplugs, grasp your ear from behind your head with your opposite hand, and pull up to straighten the ear canal. Insert the earplug until it blocks sound; then hold it in place for a moment while it expands.

Make sure your hands are clean when inserting plugs, and keep reusable plugs clean by washing them after each use in warm soapy water, to avoid ear infection.

Properly fitting earplugs need not interfere with your comfort or ability to hear important sounds. And they can protect you from gradual loss of hearing that you may not notice until too late!



SEC-OPS SAFETY TAILGATE GUIDE

Hearing Protection - How Hearing Works

Are you one of the 20 million people who are exposed to hazardous noise on the job? If so, you'll want to protect yourself from hearing loss by learning how hearing works, how your own hearing is measured, and how high levels of noise can cause hearing loss over time.

Now the Ear Hears

Sound waves travel through the ear canal to the eardrum. This membrane vibrates when the sound waves hit it, much the same way a drum vibrates when you hit it. The vibrations are transferred through tiny, sensitive bones in the middle ear to the cochlea, a coiled, hollow structure in the inner ear that is filled with fluid and lined inside with thousands of tiny hair like structures called hair cells. When the sound vibrations transfer to the cochlea, they cause waves in the fluid to move the hair cells, which convert the vibrations into nerve impulses. The auditory nerve carries these impulses to the brain, where you interpret them as sound.

How Damage Occurs

The hair cells lining the cochlea of your ear are extremely fragile. Such things as infections, head injuries, and certain drugs can damage them, but the most common source of damage to hair cells is noise. Loud noise over a period of time causes these nerve cells to die off, usually so gradually that you are not aware that it's happening until your hearing is permanently damaged.

Audiometric Tests

Fortunately, we can measure hearing loss with a sensitive test that will keep track of your hearing ability and alert you and your company to hearing loss, long before it becomes severe enough to affect you. In this test, which measures your ability to hear sounds of different frequencies (pitches), you will be asked to listen to sounds and indicate when you hear them. The results are shown on an audiogram, a graph that shows the quietest sound you can hear at each frequency.

This audiogram shows how hearing changes as we age: At lower pitches there isn't much difference, but as we get older we experience greater difficulty in hearing high pitches. The same changes take place when there is hearing loss from excessive noise. If you compare audiograms taken at one-year intervals and find that the line has dipped significantly, you are experiencing hearing loss, even though you may not yet notice it.

What Does "Too Loud" Mean?

Decibels, used for measuring hearing thresholds, are also used for measuring the loudness of noise. You are exposed to about 20 decibels in a quiet bedroom, 110 decibels when you are using a power saw. OSHA regulations require hearing protection to be made available if you are exposed to noise levels above 85 decibels for eight hours at a time. Always wear hearing protection when the noise level is over 90 decibels. You can tell you need hearing protection if you have trouble hearing someone talking two feet away, if you hear ringing or other sounds in your ears after you leave work, or if you have trouble hearing for a while after you leave work. You don't get used to noise. You may learn to ignore it, but your ears can't tune it out. You can help protect your precious hearing by wearing proper hearing protection, having your hearing tested yearly.



SEC-OPS SAFETY TAILGATE GUIDE

Heavy Equipment Safety

Operation of heavy equipment such as excavators, loaders, graders, rollers, and bulldozers, should always be done by highly skilled operators who have demonstrated the ability and necessary skills to operate safely. Ground-based workers should be trained in how to work safely around the equipment, and how to stay clear. Unsafe practices by either the operator or those around the equipment can create very dangerous situations. Serious injuries can occur if the equipment strikes a worker, or if the equipment is rolled over.

Here are a few common safety rules for operators and ground based workers to consider: Good communication is essential. A standardized set of hand signals should be used by the operator and signal person. Operators should always know exactly where all ground based workers are located, and the wearing of high visibility vests will help the operator to locate them quickly. The equipment should have a back up warning alarm that can be heard by all nearby workers. Two-way radios are also valuable communication tools.

Heavy equipment must have a rollover protective structure (ROPS) meeting OSHA requirements. The ROPS is designed to protect the operator if the machine tips over. A seat belt must be worn so that the operator will not be thrown out of the seat during a rollover or upset situation. If working on slopes, try to avoid moving across the face of the slope. Try to operate up and down the slope face if possible. Use extreme caution when operating near open excavations.

Wear hearing protection when required. If it has been determined that noise levels around the equipment could potentially cause hearing loss, always use protective plugs or muffs when working on or around the equipment.

Never jump onto or off the equipment. Operators should always use the three-point contact rule when climbing onto or off heavy equipment. The three-point rule means having both feet and one hand, or one foot and both hands in contact with the ladder access at all times.

Inspect and service the equipment regularly. Complete equipment service in accordance with the manufacturer's recommendation. Periodic safety inspections on all components of the equipment should be done regularly by qualified personnel. Inspect the steering system and brake systems carefully. A pre-shift walk around inspection by the operator is highly recommended.

Injury accidents involving heavy equipment on construction sites have a higher probability of resulting in a fatality than many other types of accidents. It is critical to follow all safety rules and procedures when operating or working around heavy equipment.



SEC-OPS SAFETY TAILGATE GUIDE

Housekeeping is an Important Part of Your Job

Your employer is not your mother! What do I mean by that, you ask? I mean, just like when you were young, your mother had to remind you to pick up after yourself. Now that you are on your own, you still need to be told sometimes. Housekeeping is a very important part of your job. Not only does it improve the overall appearance of your shop or work area, it shows that you take pride in where you work. The best way that you can help keep your work place clean is to pick up after yourself! Don't leave it for the next shift or another craft to worry about.

Here are some reasons to keep your work area clean:

- You reduce trip and fall hazards.
- Increased production. You won't have to waste time looking for a misplaced tool. You will always know where your tools are when you put them where they belong after you use them.
- If someone falls because of materials you left on the floor, you will feel guilty because you were a causal factor in the accident. Also, the injured worker may want to remind you of that!
- You reduce a potential fire hazard by removing unneeded combustibles from the work area.

Here are some tips to maintain a clean work area:

- Plan the job. Make a list of the needed tools/materials. This will help to minimize unnecessary clutter around your work area.
- Develop a routine for cleaning up at the end of the shift or periodically during the shift.
- Do not allow employees to eat, drink or smoke in the work area, not only because of litter problems, but also because of hygiene concerns.
- This is not, by all means, all-inclusive. Take responsibility for yourself and your work area! Remember, a clean work area is a productive work area and also enhances safety!



SEC-OPS SAFETY TAILGATE GUIDE

Housekeeping on Construction Sites

Picture your construction site in your mind. Construction sites can be busy and hectic with many workers and multiple contractors carrying on different yet simultaneous operations. What would happen if these groups never cleaned up after themselves? Trash and debris would pile up to become one large hazardous obstacle course. Imagine how difficult it would be to maneuver around such a site. How would you dodge the falling materials thrown or accidentally pushed over the sides of the building? How would you find your tools and supplies if they were covered by debris from other workers? A construction site with poor housekeeping is not productive nor is it a safe working environment.

Although, the overall safety of a construction site is the ultimate responsibility of the general contractor who maintains the site safety plan and communicates its information to all of the subcontractors on site, every worker on the site is responsible for safety. It's every worker's responsibility to know and following the site safety plan, practice good housekeeping, follow recommended work practices, and promptly report and/or correct hazards at the worksite.

If you're a construction site worker, you must...

- Do your part to keep the worksite free of unnecessary clutter and debris that could cause an injury or accident;
- Try to limit the amount of materials and chemicals onsite to the quantities that you will need;
- Place trash and debris in the proper receptacles located; conveniently throughout the job site as you go about your daily work;
- Remove combustible materials such as wood and paper from the site promptly;
- Keep form and scrap lumber with protruding nails cleared away from work areas, passageways, and stairs;
- Remove or bend over protruding nails prior to disposal and storage;
- Keep storage, staging, and work areas, along with all stairs and walkways on the construction site, free of obstructions, and debris;
- Store tools and materials neatly and out of the way in storage bins or lockers and keep flammable or hazardous wastes in covered, segregated waste containers;
- Ensure that materials stored on roofs or at heights are secured;
- Never throw waste, materials, or tools from a building or structure.

Debris chutes are a safe means of removing this material from an elevated work site;

- Guard the area where the material could fall and post signs around the workplace to wear hard hats and watch for falling debris;
- Place protective guards across areas where workers may could fall or could face an impalement hazard;
- Control muddy areas using fill, gravel, boards and plywood, or other means.

You can do your part to keep the worksite a safer place for yourself and your coworkers, if you just remember to clean up as you go and at the end of each shift.



SEC-OPS SAFETY TAILGATE GUIDE

Importance of Safety Training

Routine work can dull alertness and a relaxed attitude can replace the caution that existed when the job was new and interesting. In many jobs the same route is traveled daily over the same roads or the same tasks are repeated with little conscious thought. Without some periodic reawakening to the ever-present hazards, lethargy deepens and the odds of an accident occurring can increase.

Workers may not always recognize the importance of safety training or think of it as unnecessary because they've "been doing it for years." But an important benefit of periodic safety training is the reminder that a danger can exist and the no one is immune to accidents. Therefore, it is important for workers to understand the purpose of the training session, why it will be useful to them, and what can result from not following safety rules and procedures.

The safety training should be organized so that the order in which the material is presented will match the steps that should be taken on the job. Make sure every worker understands the training material; not just that they were present or a test was given. Insist on questions from trainees after a session to tell you what did or didn't sink in. This will let you know what has to be reviewed again. If there's a general lack of understanding of hazards or safety rules and practices, schedule another safety meeting or plan a refresher course for a later date.

Employees should be able to immediately practice and apply new knowledge and skills. If workers don't understand safety training information well enough to use it on the job, the training has not been effective. There should be immediate feedback if workers are doing their job safely or not. Supervisors should watch employees do their jobs and question them to identify what they do, or don't, know.

Most of these tips are relatively simple and inexpensive solutions, but the safety payoff can be enormous. Remember, training is only effective when workers understand, and use, what they've learned. It takes less than a second to lose the rest of your life.



SEC-OPS SAFETY TAILGATE GUIDE

Importance of Safety Training

I have been instructed in the basic hazards of this equipment/procedure as listed above. I understand this proper safe work procedure.

Instructed by: _____

Date: _____

Trainee Names:

Two columns of horizontal lines for writing trainee names.



SEC-OPS SAFETY TAILGATE GUIDE

Insect and Spider Bites

Each year many workers experience insect and spider bites serious enough to make them lose time off the job. If you are stung by a bee:

- Remove the stinger gently (with tweezers or a credit card if possible) and avoid squeezing the poison sac.

Apply an ice pack or a cloth dipped in cold water to reduce swelling and itching.

- (A sting from a yellow jacket can be deadly. These insects feed on dead animals and can cause blood poisoning.)
- If you have an allergic reaction to a bite, get medical help immediately.

Of spiders causing serious medical problems only the black widow and brown recluse are considered serious threats. The black widow spider has a shiny black body, about the size of a pea. With legs extended, it's about an inch long. Females have a red or yellow hourglass mark on their underside. The black widow spider is partial to outdoor latrines and other places that attract flies. The black widow spider will attack with even the slightest provocation. Its bite is less painful than a pinprick, and does not cause a hole in the skin, but soon, intense pain and stiffness set in. Symptoms also may include fever, nausea, abdominal pain and chills. For children and the elderly, black widow bites can be lethal.

Also beware of the brown recluse spider. When it comes to insect bites, the bite of the brown recluse spider is one of the most feared. This yellowish-tan to dark brown spider is 1/4-1/2 inch long. It has a characteristic fiddle-shaped mark on its upper body. Its bite can have painful, disfiguring, and even deadly results. Within hours of a bite, victims may suffer severe pain and stiffness, fever, weakness, vomiting or a rash. The recluse's venom destroys cells and clots blood, blocking blood vessels and leading to gangrene. Within 24 hours, the wound erupts into an open sore ranging from the size of a thumbnail to that of an adult's hand. Anyone bitten by either spider should seek medical help immediately.

So basically, the first line of treatment, if you suspect a bite is to apply a cold compress. However, if you have a bite and experience other side effects, get medical treatment immediately.

Experts say, spiders typically don't go looking for human prey. Spiders are generally shy and try to avoid contact with humans. Leave them to their dark, secluded spaces – under rocks, in debris piles, sheds, closets and attics, and there's no worry. Invade their space, though, and risk a bite. Spiders will attack if trapped or if pressed against the skin.

Not all people react the same way to these spider bites. The variation may be due to the amount of venom injected or the person's physiology or immune system.



SEC-OPS SAFETY TAILGATE GUIDE

Jack Safety

This is primarily a safety check-off sheet to inform the employee of the dangers and hazards of combustible materials. Each employee must be trained on these hazards to avoid injury.

Minimum Safety Equipment Required: Safety glasses, Respirator (see below)

Many people think there is nothing more to operating a jack than to putting it under the load, inserting the handle and jacking away. But every year there are lots of workers who are seriously hurt because they didn't use the jack correctly. To avoid having an accident of your own follow these simple, basic rules:

1. Use a jack with a rated capacity that equals or exceeds the load you're lifting.
2. Always set the jack on a firm and level foundation.
3. To prevent slipping, use a wooden block softener between the head of the jack & the load.
4. Set the jack perpendicular, at a right angle, to the load.
5. If there is a chance the load will swing to the side, install props or guys before doing any lifting.
6. Have enough help when you install or move a jack.
7. When you're working on a floor of any kind, make sure the load limit of the floor isn't exceeded.
8. Before working under a raised load install blocking to keep the load from accidentally falling.
9. Keep jacks in good shape and well lubricated, but only lubricate at the points where lubrication is specified.

Check for broken teeth and other defects. Never throw or drop jacks.

10. When a jack develops any defect whatever, turn it in for repair and be sure to test it under load before putting it back in service.



SEC-OPS SAFETY TAILGATE GUIDE

Keep Your Hat On – Hard Hat Safety

When it comes to personal protection, your best friend on the job is your hard hat. And you've earned the right to wear it proudly because the work you do is demanding and dangerous. Over the years we've all known someone whose life was saved by a hard hat. Let's talk about how your hard hat does its job, and how you can make sure it keeps on protecting you.

No matter what your hard hat is made of fiberglass or thermoplastics, it is specifically designed and certified by the American National Standards Institute to protect you from high impact. How much impact? Well, how about a hammer dropped onto your head from two stories above? A hard hat is able to do this because the shell is flexible enough to absorb some of the impact and transfer the rest of the impact to the special system of webbing inside the hat. The webbing in turn stretches and spreads the remaining shock throughout the head and body. And a hard hat does more than protect you from impact. The space in the hat combines the reflective surface to help you keep a cool head – 5 to 7 degrees cooler than the average baseball cap, for instance. In addition to protecting from impact and heat, Class A and B hats also protect from certain types of electrical shock.

Because a hard hat is carefully designed, it will only work well when you use it right. This means keeping that space between the webbing and the shell open – it wasn't meant as a place to store your cigarettes or your gum. Avoid wearing headgear under your hard hat, except for cold-weather liners specifically designed for it. The straps should be adjusted to fit you and only you: snug but not tight. Use only your own hat.

Check your hat for scratches, cracks, dents or brittleness. Wash the webbing in detergent at least every 30 days, replacing it when it gets frayed. Avoid getting creative with the shell. Drilling ventilation holes or painting the hat with solvent-based paints can weaken the shell. Incidentally, before you go out and test your hats by dropping hammers on them from a second story window, let me point out that a hard hat is designed to protect you from this impact – but only once. In fact, any time your hat receives a heavy blow you should replace it. By the same token, avoid dropping or throwing your hat. Some companies automatically replace hats at regular intervals even when there's no visible damage.

Some 70,000 workers are disabled by head injuries each year. Keep your hard hat on, and your chances of staying ahead of those injury statistics are excellent.



SEC-OPS SAFETY TAILGATE GUIDE

Lifting

This is primarily a safety check-off sheet to inform the employee of the dangers and hazards of improper lifting techniques. Each employee must be trained to know when to get assistance by using a mechanical advantage, or another employee, to avoid injury.

Minimum Safety Equipment Required: NA

Plan your move:

1. Size up the load and make sure your path is clear.
2. Get help as needed.
3. Use a dolly or other materials handling equipment if possible.
4. Use a wide, balanced stance with one foot slightly ahead of the other.
5. Get as close to the load as possible.
6. To ensure solid contact when lifting heavy objects, use your entire palm, not just your fingertips.
7. Tighten your stomach muscles as the lift begins.
8. When lifting, keep your lower back in its normal arched position, bend at the hips (stick your bottom out) and lift.
9. Pick up your feet and pivot to turn. Don't twist your back.
10. Lower the load slowly, maintaining the curve in your lower back.

Lifting heavy bags:

1. Put one knee down against the bag and pull the bag up your leg.
2. Rest the bag on the edge of the knee and stand upright.
3. Pull bag to your waist height.

Lifting over Barriers:

Use the "golfer's" lift for lighter objects in containers or behind barriers. Place one hand on a support, swing one leg behind as you reach, then push up on your hand and straighten up.

When heavier objects require two hands for an over-barrier lift, move close to the object, then bend at the hips while keeping your back in the normal arched position. Get a sure grip, then lift, allowing the muscles at the back of your legs to do the work.

Lifting Sheet Materials:

1. Where possible, store sheets at a convenient height and above ground on trestles.
2. Grasp sheet on long side at the mid-point.
3. Tip sheet up, then slide sheet partway off pile.
4. Bend at the hips first, then the knees, maintaining the normal curve in your lower back. Grasp sheet above and below at the mid-point.
5. Carry Sheet, keeping your back erect. Avoid leaning to one side.



SEC-OPS SAFETY TAILGATE GUIDE

Lifting Sheet Materials from the Floor:

Method #1

1. Bend at the hips, then the knees, keeping body as upright as possible, and grasp sheet at midpoint.
2. Tip sheet up to horizontal position.
3. Stand sheet to vertical position.
4. With back to the sheet, bend your knees and place hands on either side of the sheet.
5. Carry the sheet, keeping back as upright as possible.

Method #2

1. Bend at the hips, then the knees, keeping your back as upright as possible, and grasp sheet at midpoint.
2. Tip sheet up to horizontal position.
3. Lift sheet slightly and put toe under mid-point.
4. Bend at the knees, keeping upright. Slip free hand under sheet.
5. Stand and lift, maintaining the normal curve in your low back.

For long carries of sheet material, use a carrying handle. Better yet, if walking surface is smooth and hard, use drywall cart.



SEC-OPS SAFETY TAILGATE GUIDE

Rules for Preventing Heat Illnesses

Purpose

To comply with OSHA requirements Sec-Ops will control the risk of occurrence of heat illness among our employees who work outdoors. This applies to all employees whose work requires exposure to the elements; this includes Facility Services employees and ESS and Resource Protection employees.

Heat Illness

Heat Illness means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, and heat stroke.

Program Components

- Calculation of Heat Index for outdoor worksite
- Water
- Shade (Recovery Time)
- Prompt Medical Attention

Calculation of Heat Index

In general, employers should assume that there is a significant risk of heat illness for employees working in the sun if the Heat Index for the day is 80 or above. If employees will be working in shade, a heat index of 90 or above is the equivalent point of risk. This adjustment for work in the sun is critically important because the Heat Index you calculate from the chart assumes a person will be working in the shade.

The Heat Index can be calculated by checking the temperature and humidity at <http://www.weather.com/> - just put in the zip code for the area where the crew will be working and have the crew Supervisor use the temperature and humidity numbers to apply to the heat index chart.

It is also necessary to account for the clothing workers are wearing. The Heat Index assumes people are wearing light summer clothing. When workers use heavier clothing, or use some types of personal protective equipment, the risk of heat illness becomes significant at a lower Heat Index.

Water

In conditions of high heat and strenuous work, the human body can lose over a quart of fluid per hour just by sweating. Continuous replacement of this lost fluid is critical to preventing heat illness, and this means assuring the presence of, ready access to, and consumption of potable drinking water.



During Red Flag work days based on the Heat Index, Sec-Ops will do it's best to provide the full-shift quantity of drinking water at the beginning of the work shift – 2 Gallons + 2 liters Water – Per Employee Per 10 Hour shift. The OSHA standard requires effective procedures for drinking water replenishment to allow employees to drink one quart or more per hour in order to reduce the risk of heat related safety issues.

2 Gallons + 2 liters Water – Per Employee

Per 10 Hour shift

At all times there must be a sufficient quantity of water present and readily accessible to allow every employee to consume at least one quart of water per hour. Any water supply procedure that depends on replenishment during the work shift will be out of compliance if it is not reliable.

If employees cannot count on reliable replenishment of the water supply, they may feel pressured to reduce their water consumption in order to conserve the supply. Employers will also be out of compliance if at any time no drinking water is available to employees, or if their practice is to wait until the water vessel is empty to replenish it. It is similarly impermissible for an employer to replenish the drinking water supply only when requested by employees.

Shade

Sec-Ops will provide shade for employees to take a rest break or “recovery period”. "Shade" means blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning. Trees can be used for shade as long as the cover provided by the trees blocks the direct sunlight.

The shaded area must also allow the employee to assume a comfortable posture and must not cause exposure to another hazard. Therefore, the shade requirement cannot be met by using areas underneath mobile equipment, like a tractor.

The employee must be permitted to remain in the shade for a period of at least five minutes. The importance of prevention cannot be overstated. When employees wait until actual symptoms appear before seeking shade and recovery, they are at significant risk of developing serious heat illness and the purpose of the standard is defeated.

Medical Treatment

The preventive recovery period, a break in the shade, is not a substitute for medical treatment. If an employee has any symptoms of heat illness, first aid procedures should be initiated.

Heat Cramps



- If alert, give the person beverages to sip (such as Gatorade), or make a salted drink by adding a teaspoon of salt per quart of water. Give a half cup every 15 minutes. Cool water will do if salt beverages are not available.
- Massage affected muscles gently, but firmly, until they relax. Heat Exhaustion - Are two or more of these signs of heat exhaustion present?
- Skin that is pale, cool and clammy
- Sweating
- Dry mouth
- Dizziness
- Fatigue and weakness
- Headache
- Nausea, vomiting
- Weak and rapid pulse
- Muscle cramps

Heat Stroke

Signs of heat stroke:

- Body temperature 104 degrees F or higher
- Skin that is red, dry and/or hot
- Pulse that is rapid and then gets weak
- No sweating
- Confusion, hallucinations or loss of consciousness or convulsions

Treatment for Heat Stroke:

- CALL 911
- Move the person to a cool place indoors or under a shady tree. Place the feet higher than the head.
- Remove the clothing and either wrap the person in a cold, wet sheet; sponge the person with towels or sheets that are soaked in cold water; or spray the person with cool water. Fan the person.
- Put ice packs or cold compresses to the neck, under the armpits and to the groin area.



SEC-OPS SAFETY TAILGATE GUIDE

Rebar Safety

Anyone working around or with concrete should be aware of the hazards and safety precautions related to this operation.

- Employees working more than 6 feet above any adjacent working surface, placing and tying reinforcing steel in walls, piers, columns, etc., must use a safety belt, harness or equivalent device.
- Employees should not be permitted to work above vertically protruding REBAR unless it has been protected to eliminate the hazard of impalement. The top of the rebar must be covered with a rebar cap, wood board or similar device (as shown below).
- Handles on bull floats must be of non-conductive materials or insulated with a non-conductive sheath when used around energized electrical conductors to prevent electrical shock.
- When using a powered or rotating type troweling machine, the control switch will automatically shut off the power when the operator removes his hands from the handle
- DO NOT USE "TIE-DOWNS" on the control switches.



SEC-OPS SAFETY TAILGATE GUIDE

Responding To Vehicle Fires

A vehicle fire can be a frightening and dangerous experience. Vehicle fires claim hundreds of lives and cause thousands of dollars in property damage each year. Being prepared for such an emergency can save your life and helps prevent damage to property.

When you are faced with a vehicle fire, what should you do? The ultimate rule to keep in mind in fighting a fire is not to endanger yourself or others unnecessarily. Do your best to get the fire under control, but do not take foolish risks. The following tips will help you determine your course of action:

- Do not panic. Quickly take stock of the situation, and then take appropriate action.
- Turn off the ignition and immediately check for leaking fuel.
- First decision to make: Do you believe the fire is small enough to successfully fight yourself, or do you need professional assistance?
- If you need the fire department, have the first available person call them for you, and move away from the burning vehicle.
- If you open the hood, use a glove, and do not open it any more than necessary to fight an engine fire--air will intensify the fire.
- Do not use water on an oil fire--this will only make the problem worse.
- Make the most of your ABC or BC fire extinguishers capacity--use only enough at a time to suppress flames.
- When using a fire extinguisher keep the wind behind you, if possible, to avoid inhaling fumes and smoke.
- If fire extinguishers are empty and the fire is still not under control, try using sand or dirt to smother the flames.
- In an electrical fire, this commonly erupts under the dashboard and has a distinct odor, disconnect the battery cables from their terminals if at all possible.
- Once the fire is out, do not leave the vehicle, assuming all is well. Fires often flare up again. Keep checking the fire area.

If you stop to help another driver whose vehicle or cargo is on fire, be sure your own vehicle is parked well away from the fire scene. Park on an upgrade if possible to avoid the possibility that leaking flammable liquids will run down to your vehicle and involve it in the blaze.

Prevent vehicle fires by periodically checking the fuel and electrical systems for signs of wear. Signs include cracked or leaking fuel lines, leaks around the carburetor or leaks from the fuel injection system (injectors, pressure lines, etc.). Usually a strong odor of fuel indicates a possible leak and the potential hazard of fuel igniting on a hot source (e.g., exhaust manifold). Be alert to broken or bare electrical wires and report these to your mechanic. A defective wire can ground out, heat up and possibly start a fire in your vehicle's electrical system. Also keep your engine free of oil build-up to help reduce the chance of an engine fire.



SEC-OPS SAFETY TAILGATE GUIDE

Road Work Safety

Road workers install, maintain, and improve our roads to keep them safe, but over 100 road workers are killed each year while doing this work. Road work hazards such as moving vehicles and construction equipment require workers to stay alert and follow safety procedures.

Before conducting roadwork jobs, review the required tasks, location, and time of day to determine the necessary equipment, personnel, and materials. Plan how you will control traffic along the road and within the construction zone. Have enough trained flaggers to complete your work. Gather the signs, cones, flags, drums, and/or message boards that you will need for the job. Inspect your signage to make sure it is in good repair and highly visible. Clean or discard dirty equipment with limited visibility.

Get training on traffic control and safe work practices. Set up and maintain your roadside work zone properly. Get training on the equipment that you will use and drive, from the smallest tool to the largest moving vehicle. Operate tools and equipment according to the manufacturer's recommendations. Know the hazards of the chemicals and materials that you use.

Get training on the personal protective equipment (PPE) that you are required to wear, including its uses and limitations. Wear high visibility garments on your legs and chest. Wear your assigned PPE, including a hardhat, safety shoes, and work gloves. Consider earplugs or muffs, safety glasses, and fall protection depending on the job task.

In the work zone, watch for fast-moving motorists and large construction equipment. Set up parking zones that have safe entrances and exits. Group your vehicles on the same side of the road for visibility. Set up the job site and tasks to minimize the need to cross the active road. Set up traffic lanes within the jobsite for clear access and visibility.

Work facing traffic and stay alert, or station a lookout to watch oncoming traffic. Have an escape route and/or plan of action in place. Watch for backing vehicles because the driver often has a limited view. Practice good communication and make sure all vehicles have backup alarms. If you are flagging, acting as a lookout, or traffic director, remain alert. Do not drink, smoke, or have a conversation while performing these duties.

Road work is a physical job requiring strength and endurance. Stay fit so your body can do the work. Keep your back straight and use proper lift techniques. Use anti-vibration gloves when working with vibrating equipment. Take frequent micro-breaks every 30 minutes to stretch and relax your muscles. Rotate your tasks during the day to use different muscle groups.

Road work occurs in all types of weather and throughout the year. Wear appropriate clothing for the climate. Light colored layers and sunscreen protect you during the hot months while layers of moisture-wicking clothing protect you in the cold. Get plenty of rest, eat right, and drink enough to stay healthy and alert on the job. Take safety on the road!



SEC-OPS SAFETY TAILGATE GUIDE

Roadside Equipment Repair

This is primarily a safety check-off sheet to inform the employee of the dangers and hazards of combustible materials. Each employee must be trained on these hazards to avoid injury.

Minimum Safety Equipment Required: Safety Glasses, Reflective Safety Vest Wear appropriate personal protective equipment consistent with the hazard

- Use safe driving techniques when pulling off the road, parking off the road and pulling back onto the road.
- Use proper warning markers appropriate for daylight or darkness when parked to work on vehicles or equipment.
- Proper lifting techniques should be used. Get help or use equipment if necessary.
- Always park as far as possible away from traffic.
- Be certain jacks and hoisting equipment are rated for the loads being lifted.
- Use proper jacking and hoisting procedures.
- Take caution to avoid hot surfaces, liquids and materials.
- Use proper precautions when working with equipment subject to high pressure such as radiators, tires, hydraulic systems and batteries.
- Use proper safety precautions to avoid explosive, chemical injuries when working with or near batteries. Wear eye protection.
- Ascertain the stability of equipment being repaired and the service vehicles when stopped on the road or off the road, particularly on uneven terrain.
- Clean up gasoline, oils or detergents that may present fire or other safety hazards.
- Ensure that first aid kits and fire extinguishers are readily available and in good condition.
- Disable starting circuits or procedures systems when working around engines or other equipment moving parts to prevent inadvertent equipment or accessory movement.



SEC-OPS SAFETY TAILGATE GUIDE

Safe Driving

Emergencies, by definition, happen suddenly with little time for evaluation and decision-making. You have to be prepared to act quickly to avoid a crash. A review of nearly 12,000 collisions found that more than 37 percent of drivers involved took no action to prevent or avoid the incident.

Think caution.

Get in the right frame of mind before you get behind the wheel. Never drive when you're emotionally upset or rushed. Your alertness level automatically drops around your regular bedtime. If you must drive at that time, stop each hour and walk around or wash your face with cold water. According to traffic safety authorities, lack of attention is a major contributing factor to auto crashes.

In the driver's seat.

Correct seat adjustment puts you in position to perform the gentle, smooth, precise movement necessary for safe motoring in inclement weather. Adjust your seat so you sit no closer than 10 inches to the steering wheel and can see the road ahead. This distance allows room to move your arms and reduces the chance of injury to the fingers, hands, and forearms if the air bag deploys. Shorter drivers may need pedal extensions to be able to keep this distance. Check mirrors and environmental controls before you start. Don't forget to buckle up and have all your passengers buckle up too.

Suit up.

Select clothing that provides comfort and freedom of movement. While heavy garments may be necessary outside the vehicle, they can restrict movement behind the wheel. Always come to a complete stop in a safe spot before removing a coat or gloves.

Skills for Driving With Reduced Traction

Wet roads mean poor traction. Conditions are most dangerous during the first 10 minutes of a heavy downpour as oil and debris wash away. Knowing how to handle poor traction reduces the potential for hydroplaning, skidding or getting stuck in the mud.



SEC-OPS SAFETY TAILGATE GUIDE

Why Do We Have Safety Meetings?

Why do we have safety meetings? Safety meetings are an opportunity for employees to get together and figure out how to do their jobs safer. Topics discussed in safety meetings may be topics that you are familiar with, or topics that you have limited knowledge about. If the topic is something that you are familiar with, it may be easy to tune-out and not listen to the safety information presented. If you are an expert in the current topic, speak up and share your experiences.

Information passed on in a safety meeting has a purpose - To stop you or your co-worker from being injured. Safety meetings also allow employees an opportunity to relay safety / health concerns or improvement ideas to their supervisors.

Injuries result from unsafe acts or unsafe conditions. For a variety of reasons, unsafe acts typically account for 90% of all injuries, according to some experts.

If you're still not sold, let's look at the potential cost of injuries. More specifically, how can injuries directly affect you?!

- DEATH - The ultimate unwanted result. Where does this leave your loved ones?
- FINANCIAL COST- Lost pay or reduction in pay. Who pays the bills? Are you the sole income producer in your household?
- PAIN & SUFFERING- An obvious detriment that no one desires.
- DISABILITY- A life changing experience. Now you're not able to do what you use to do. Maybe now you can't cast that fishing rod, ride that bike, hug your wife, lift your child, or simply see? Or perhaps you're confined to a wheelchair – Good-bye career.
- YOUR CO-WORKERS SAFETY- Perhaps you and your co-worker have been working together for some time now. Chances are you may spend as much time with your co-workers than possibly your own family. Thus, you obviously do not want something bad to happen to them. Watch out for their safety too.

Safety meetings are a perfect opportunity for you to communicate any safety ideas or concerns that you may have. Participate in your safety meetings. If you don't participate then your ideas will not be heard. Who knows, the idea that you have may very well save your co-worker's life or even your own!



SEC-OPS SAFETY TAILGATE GUIDE

Safety Sun Glasses

Spring is here! Now is the time many people working outdoors break out the sunglasses. While conventional sunglasses may protect the eyes from glare, they do a poor job of protecting your eyes from the industrial hazards of splashes, flying objects, and dust. In fact, conventional glasses can present their own hazards in the workplace.

It is a fact that the frame and lenses used in safety glasses are stronger than the frame and lenses used in conventional glasses. When an object strikes the lens of safety glasses it is very unlikely that the lens would dislodge. This is not true of conventional eyewear, especially those types with wire frames. When an object strikes the lens of conventional glasses, the lens can shatter, showering the wearer's eye with shards of glass. This can happen, and it has happened. But, with a pair of approved safety glasses, the lens may break, but it will not shatter back into the eye.

Because sunglasses have a darkened lens, some people mistakenly believe these glasses will provide the needed protection when welding, brazing, or cutting. This is far from the truth. A darkened lens will not protect your eyes from the infrared (IR) and ultra-violet (UV) radiation. Wearing glasses with darkened lenses, which are not made for industrial applications, can actually be more dangerous than wearing no glasses at all. This is because the eye attempts to compensate for less light by opening the pupil wider. In turn, this allows more of the damaging radiation in. For adequate protection from the visible light produced by welding, the lens must be of a specified shade. Sunglasses are not welding/cutting goggles.

What should you look for when selecting safety sunglasses? First, be sure the glasses are indeed safety eye wear, by checking to see if they comply with American National Standards Institute (ANSI) standards, the organization which sets the criteria for safety eyewear. This will be stated on the packaging and on the frame of the glasses. Look for "Z87.1." This is the ANSI designation identifying the glasses as approved safety eyewear.

Although not a necessity, consider glasses providing IR and UV protection. Look for glasses that are lightweight and adjustable. If the glasses don't fit properly, they won't be comfortable and thus they may not be worn. Try them on and adjust them before starting work. A good pair of safety sunglasses can be purchased for less than \$10. This is certainly a deal when you consider you are protecting your priceless eyes.



SEC-OPS SAFETY TAILGATE GUIDE

Skin Protection

The skin is the single largest organ of the body. The skin, when healthy, protects us from chemical, physical, and biological hazards. Skin weighs about 10% of our total body weight and is approximately one eighth of an inch thick. The skin is made up of two layers, the epidermis (outer layer) and the dermis (inner layer). The outer layer of skin is only

1/250th of an inch thick, and is the part of our skin that forms the protective barrier.

There are many skin irritants that employees may be exposed to in the workplace. One out of every four workers may be exposed to something that will irritate the skin. Many different things may cause skin damage. When something penetrates through the outer layer, the inner layer of skin reacts to it. Strong, or regularly repeated irritations of the skin may lead to skin diseases.

The skin contains oil glands, hair follicles, and sweat glands. These are like tiny holes. So the skin can be like a sponge when it contacts something. Skin also contains blood vessels, and some chemicals can penetrate the outer layer and enter the blood stream.

The type of environment you are in can cause skin problems directly or they can work with other factors to increase skin problems. These factors include:

- Heat – causes sweating. Sweating may dissolve chemicals and bring them into closer contact with the skin. Heat increases the blood flow at the skin surface and may increase the absorption of substances into the body.

- Cold – dries the skin and causes microscopic cracking.

This cracking allows substances to cross the outer layer of the skin, thus entering the body.

- Sun – burns and damages the skin. Sun can increase absorption of chemicals. Sun reacts with some chemicals to enhance their negative affects on the body.

How to Protect Your Skin

- Wear long sleeve shirts and pants, to minimize the amount of skin exposed.
- When working outdoors, wear a hat with a brim.
- Use a high sun protection factor (SPF) sunscreen.
- Wash your hands regularly during and after work.
- Wear gloves when handling chemicals.
- Where possible, use tools to handle hazardous substances instead of your hands.

When using gloves or clothing to protect yourself and your skin, you should be careful when removing contaminated clothing, so as not to contaminate yourself.

If a worker is exposed, or thinks he/she may have been exposed to a hazardous substance, the area should be rinsed for at least 15 minutes. If a worker is accidentally contaminated, he or she should get under a shower immediately and remove the clothing while showering. Certain substances can be absorbed quickly across the skin. Time is critical. Medical help should be obtained immediately.



SEC-OPS SAFETY TAILGATE GUIDE

Standing on Your Own Two Feet

And Other Reasons to Use Foot Protection

Do you wear safety shoes on the job? If you think you don't need them, consider that about one in five work-related accidents involves the foot and leg. Falling objects cause most of these, but compression, puncture, burns and slipping on wet surfaces are also common. Wearing the proper safety shoes easily prevents all these accidents.

Style and Comfort

When you get ready to choose a pair of safety shoes, you are going to be surprised at the options available to you. Today's safety shoes come in a wide variety of types, styles, materials and weights. Many safety shoes look just like street shoes and cost very little more. And they are comfortable the average safety shoe weighs only 11/2 ounces more than street shoes. Let's look at some of the kinds of workplace hazards that you may encounter and the types of shoes designed for them.

Mechanical Hazards

Falling objects, compression from rolling objects, and punctures are easily the top three sources of foot injury, and the ones the standard safety shoe protects against. Typically, your safety shoe will have steel toecaps to guard against injuries from falling objects and compression, and instep protection of aluminum, steel, fiber or plastic to protect the top of the foot. Steel insoles or reinforced metal soles protect from puncture. To protect against slipping on wet or oily surfaces, use wooden soles or cleats, non-slip rubber or neoprene soles. Icy surfaces may require strap-on cleats.

Electrical Hazards

The buildup of static electricity on your body can be dangerous when you are working near explosive or highly flammable substances. Workers in such environments wear safety shoes with leather, cork or other conductive soles and no exposed metal, which could cause sparking. For protection from live electrical current, shoes, including metal parts must be thoroughly insulated with rubber soles. For high-voltage hazards, use conductive shoes, insulated shoes with a connector from calf to heel to pass electricity to the floor or ground. Electrical-hazard shoes must be kept dry.

Extreme Heat or Cold

In extreme cold wear shoes with moisture-proof insulation and insulated socks. Wooden-soled shoes or slip on sandals protect against heat; surfaces too hot for wood soles require aluminized heat-protective shoes or boots, When working around molten metal and sparks, use foundry boots with elastic gores for quick removal in case hot metal or sparks get inside.



Chemical Hazards

Many chemicals and solvents can burn or eat away ordinary shoe materials. For protection from these hazards wear rubber, neoprene or plastic footwear, depending on the type of chemical you are exposed to and your company's policy.

Other Protection

Your job may require additional protection, such as metatarsal guards, which cover the top of the shoe for greater protection from falling objects; puncture-proof inserts; shin guards; or metal foot guards, which strap over the shoe.

Disposable plastic overshoes protect against infection and contamination from sanitation hazards.

Your Shoes

Be sure your safety shoes are approved by the American National Standards Institute (ANSI & ASTM) - the rating should be stamped inside your shoe. Choose shoes that you can wear comfortably for hours. For the best protection, keep your shoes clean and dry, and inspect them regularly for cuts, cracks and embedded metal. Replace them when they get worn.

If you follow company rules for safety and protective equipment, stay on the lookout for hazardous conditions and equipment, and wear protective footwear appropriate for your job, you can be sure that you are doing everything. Preventing workplace injuries is a matter of life and limb. Protect yourself by wearing the right protective footwear for your job.



SEC-OPS SAFETY TAILGATE GUIDE

Sun Safety

QUIZ: What do you know about the skin you're in?

1. Skin cancer is the most common form of cancer in the United States. True - Skin Cancer is the most common form of cancer in the United States, with about 1 million new cases expected every year.
2. The development of a new mole or a change in an existing one may be a sign of skin cancer. True - The development of a new mole or any changes in size, shape, color or texture in a mole may be the sign of skin cancer and should be reported to a dermatologist or your own doctor right away.
3. People with dark skin can't get skin cancer. False - Anyone can get skin cancer. Darker-skinned people have more melanin in their skin, a brownish pigment in their skin that serves as a buffer by absorbing ultra violet ray, there by lowering but not eliminating the risk of skin cancer.
4. You can't die from skin cancer. False - This year 7,500 Americans will die from malignant melanoma, which is responsible for six out of seven skin cancer deaths.
5. You have an increased risk of malignant melanoma if a parent, sibling, or child has had it. True - Your risk is increase if an immediate family member has or has had a melanoma.
6. If you stay out of the sun, you'll never get skin cancer. False - Even though there is a strong correlation between ultra violet exposure to the sun and all types of skin cancer, you can still get skin cancer if you stay out of the sun. It is important to regularly stay of out of the sun. It is important to regularly examine your skin for signs of cancer no matter how much sun you get.
7. Malignant melanoma cannot be cured. False - When treated in its earliest stages, melanoma can be cured.
8. Melanoma can occur anywhere on your body. True - Melanoma can develop anywhere on the body, even places that are not exposed to the sun, such as the bottom of your feet.
9. Redheads and blonds are more likely to get melanoma. True - Redheads and blondes have a two-to-four-fold greater risk of developing skin cancer.
10. If you were born with one or more moles, you are more likely to develop malignant melanoma.
True - Most moles develop sometime after birth, but some people are born with them. "Birth moles" increase a person's risk of melanoma.



SEC-OPS SAFETY TAILGATE GUIDE

Self Exams

Research shows that regular skin self-exams could save 4,500 lives annually. How often you should perform skin self-exams depends on how high your risk is. Here's how to do one:

After showering, check yourself in a well-lighted room using a full-length mirror and a hand-held mirror. Start by checking moles and birthmarks you've had since birth. Look for changes, especially a new mole or skin discoloration, a sore that does not heal, or any change in the size, shape, texture, or color of an existing mole.

Look at the front and back of your body in the mirror. Then raise your arms and look at your left and right sides.

Bend your elbows and look carefully at your fingernails, palms, forearms, and upper arms.

Examine the back, front and sides of your legs. Look between the buttocks and around the genital area. Sit and closely examine your feet, including the toenails, soles, and spaces between the toes.

Look at your face, neck, ears, and scalp. Use a comb or hair dryer to move your hair so that you can see well. Or get someone else to check your scalp for you.

If you find anything suspicious, visit a dermatologist right away and ask for a full-body exam.



SEC-OPS SAFETY TAILGATE GUIDE

Trenching/Shoring Requirements Summary

- Before excavation, underground utilities shall be located and marked. Adjacent structures shall be stabilized.
- Appropriate barricades, fences, protected walkways and signs shall be provided to protect the public.
- A competent person shall be in charge of each excavation who is trained to identify hazardous conditions and who has the authority to take corrective action. The competent person shall inspect excavations on a daily basis and after every rain and fill out the trench inspection form.
- Workers shall be protected from cave-ins by either an adequate sloping system or an adequate support or protective system.
- Stairs or ladders shall be provided when workers enter excavations over 4 feet deep.
- A means of exiting the trench shall be provided every 25 feet.
- Workers shall stay away from any equipment loading or unloading material.
- Excavated or other material shall be retained 2 feet or more from the edge of the excavation.
- Workers shall not enter or work in trenches with hazardous atmospheres without adequate controls. Use an air monitor to test the atmosphere.
- Workers shall wear all required personal protective equipment including hardhats, safety footwear, gloves, eye protection, hearing protection and fall protection devices as needed.
- Shoring shall be placed so that shoring is 18 inches above the soil level.
- You must use plywood with the hydraulic shoring

Type A Soil:

- Hard soil or clay
- $\frac{3}{4}$: 1 (53 degrees) Example - $\frac{3}{4}$ feet of slope for every vertical foot

Type B Soil

- Silt – clumps & crumbles
- 1 : 1 (45 degrees) Example - One foot of slope for every one vertical foot

Type C Soil

- Sand – 1 $\frac{1}{2}$: 1 (34 degrees) Example – 1 $\frac{1}{2}$ feet of slope for every one vertical foot. Previously excavated trenches must be treated like type C soil – so this would be anywhere there is an existing pipe or underground utility.



SEC-OPS SAFETY TAILGATE GUIDE

Take a Close Look at Close Calls

A “close call” or a near-miss without injury is easy to shrug off and forget. But, there is a danger in brushing off injuries that don’t hurt, harm or damage. When a “close call” happens, it should immediately send up a red warning flag that something was wrong, unplanned, unexpected, and could happen again. The next time it happens, it could result in serious damage, injury or death.

For every near-miss there are usually several contributing factors, most of which can be controlled. The best way to prevent the reoccurrence of an incident is by looking at those close calls. By investigating the root causes of an incident, steps can be taken to eliminate the hazard and improve the work system.

Sometimes there are multiple causes for an injury involving: equipment (unguarded machinery), environment (poor lighting or noise level), people (procedures not understood or not followed) or management (allowed shortcuts). Don’t rush to judge. Examine the facts and find what’s missing. Look for immediate and underlying causes. An immediate cause may be an unsafe condition like a mechanical failure or it could be an unsafe action by an employee. The underlying cause could be poor machine maintenance, a missing guard, a crowded work area or a lack of training.

All incidents should be reported to the supervisor so that injury report forms can be completed. Once an investigation is completed, solutions should be sought to prevent the injury from occurring again. Solutions may involve engineering controls, administrative controls, additional training, or increased communication between management and workers.

Workers should daily inspect the work area for unsafe conditions or unsafe actions and, if found, report them to the supervisor. Hazard awareness is key to preventing accidents before they happen. Take steps to eliminate hazards as soon as they are discovered. Learn the real lesson from close calls. They can happen again and again until they cause injury, so tell your supervisor about every accident, no matter how minor it may seem at the time. You never know when an incident may be repeated and result in an injury or even death.



SEC-OPS SAFETY TAILGATE GUIDE

Utility/Pickup Trucks

This is primarily a safety check-off sheet to inform the employee of the dangers and hazards of operating this equipment. Each employee must complete operator training to qualify for this piece of equipment.

Minimum Safety Equipment Required: Seat Belts

- Check out the vehicle using the “Inspection and Trouble Report Form”, following all policies and procedures in using it.
- Make sure that at least one wheel chock is on board.
- Always curb the wheels and place the wheel chocks when parked on a grade.
- Operate the vehicle in compliance with all State Vehicle Codes.
- When stopping the vehicle in an area other than a regulated parking stall (to perform work), turn on the amber beacon.
- Make sure that the engine runs continuously, so as not to drain the battery.
- Never put any part of your body near the fan blades or other moving parts within the engine compartment while the engine is running.
- In the event of an accident with the vehicle, call your supervisor and the police department immediately. Fill out the accident packet located in the glove compartment.



SEC-OPS SAFETY TAILGATE GUIDE

Wash Your Hands

We assume everyone knows how to wash their hands, but many workers don't realize how important hand washing and skin care can be in the prevention of disease. Proper skin care and hand protection help keep workers productive and on the job.

The best defense against the spread of illness or skin ailments is to prevent them where possible by washing them often, using barrier creams and wearing gloves designed to protect skin from contact with a variety of harmful agents and irritants. If gloves are worn, clean or replace them frequently to make sure they don't collect or absorb irritants. Check gloves often for wear, cuts or pinholes. Be sure the gloves you choose are the proper type and material to protect against the specific chemical or situation you'll encounter.

Wearing gloves and practicing personal hygiene, especially regular hand washing, helps prevent:

- Ingestion and absorption of harmful substances
- Spread of infection and diseases
- Occupational skin disease
- Absenteeism due to illness
- Lost work time

There are things employers can do to help workers improve attention to skin care and understand the importance of regular hand washing. For example:

- Include personal hygiene and skin care in the employee orientation program and in regular safety training.
- Maintain an ongoing awareness program to remind workers of the importance of proper skin care. Posters and pamphlets are excellent vehicles for generating awareness about personal hygiene throughout the year.
- Help workers understand that regular hand washing protects against the spread of illness to their family members.
- Conduct a site survey to ensure that proper hand washing/cleaning products are provided in all suitable places throughout the work environment. Washing facilities and skin care products must be accessible to encourage regular hand washing.

Education and awareness set the pace for good hygiene practices for everyone. It's a simple matter to use plenty of soap and water, appropriate creams and/or gloves to protect the health and safety of your hands.



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Watch Out For Snakes

Snakes are found in many parts of the US and may pose a hazard for those who work outdoors. Although snakes generally avoid humans or animals, they can attack, particularly if they're surprised or are protecting their young or territory. Some snakes are considered "harmless," but others release poisonous venom when they bite. If you'll be working or walking where snakes are found, be aware of their habits, dress for protection, and know what to do or not to do if you encounter or are bitten by a snake.

Poisonous snakes commonly found in our region include:

Copperhead Snake Rattlesnake Cottonmouth

A bite from one of these snakes should always be considered a medical emergency. Although deaths from snakebites are relatively rare, people who are bitten can't always positively identify the snake, so should get prompt medical care. Even a bite from a so-called "harmless" snake can cause an infection or allergic reaction in some people.

The key to avoiding snakebites is to understand their habits and staying alert. Snake seasons are spring, summer, and early fall. They're usually found where food (rodents), water, and protection are available such as abandoned structures, irrigation ditches, water holes, and in rock piles. They like places that offer both a place to sun and a place to hide. At night when it's cool, snakes become active hunting their prey.

If you'll be working or walking in snake infested areas...

- * Wear protective clothing such as long pants, leather boots, and gloves.
- * Be aware of your surroundings.
- * Be cautious in tall grass and watch where you step.
- * Walk in areas where the ground is clear so you can see where you step.
- * Watch where you put your hands.
- * Don't reach blindly into rock cracks, wood piles, animal burrows or under bushes.
- * When you sit, look first, especially in shady areas.

Most snakebites happen when a snake is accidentally stepped on, handled or harassed. Many people are bitten because they try to get a closer look or try to kill it. So, leave snakes alone! If you encounter a snake, stay calm and freeze in place. The snake will often move away. If it doesn't move then you should slowly walk around it, keeping as far away as possible. Usually snakes are not aggressive and will not "chase" a person. They'd rather escape from noise and commotion or remain quiet and hidden.



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The symptoms of a poisonous snake bite vary depending on the snake's size and species, the amount of poison in its venom, the bite's location, and the victim's age and underlying medical problems. Specific treatment for a snake bite should be left to the emergency medical personnel. Most medical professionals recommend against incisions in the wound, tourniquets, ice or any other type of cooling on the bite and against electric shock. However, if someone is bitten, the American Red Cross suggests a few basic first-aid steps:

1. Keep the victim calm and still.
2. Have the victim lie down, with the affected limb immobilized and placed lower than the heart.
3. Remove rings, bracelets, boots or other restricting items from the bitten extremity.
4. Get medical care. Responding quickly is crucial.

Use common sense when you're in areas where there may be snakes. Keep in mind that an unprovoked snake doesn't want trouble any more than you do. Caution and respect are your best weapons against snake bites.



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Wear Your Seatbelt

Thousands of people, apparently believing themselves immune to the laws of physics, die each day as a result of vehicle accidents because they were not wearing seatbelts. According to the laws of physics, if a vehicle is traveling at 30 miles per hour, its contents and passengers are also moving at 30 miles per hour. The vehicle's sudden stop at 30 miles per hour can mean the difference of life or death to the passengers wearing seatbelts.

People are a vehicle's most valuable content and seatbelts keep people in place. In a crash, unbelted passengers will fly toward the point of impact, colliding with anything in their path, like dashboards, windshield or steering wheels with several pounds of moving force. While it's dangerous to smash into a dashboard or windshield, it can be deadly to be "thrown clear." Thrown clear of what? Telephone poles, trees, or oncoming traffic? Thrown through what? The windshield or door? Airborne objects maintain momentum as they sail, without the option of where or how they land. In a collision, passengers launched from a vehicle are 25 times more likely to die.

In a vehicle accident, the safest place to be is inside the vehicle, attached to the vehicle's seat. It's the seatbelt that keeps passengers in place. In a collision, the one part of the vehicle that stays reasonable intact, no matter how battered its outsides might be, is the vehicle's seats.

For high speeds, nighttime driving, and bad weather many passengers do buckle up, but the fact is that most fatalities occur in dry, sunny weather, at speeds under 40 miles per hour and within 25 miles of work or home. Perhaps you are a safe driver in control of your vehicle, but there are a lot of other drivers not in control of their vehicles, drivers who've drunk too much, not had enough sleep, didn't see the light change. You can't control them. Seatbelts are your best protection against those drivers. The wearing seatbelts is the law. Buckle up and protect yourself so you don't become another statistic in the accident and fatality records.



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Why Use A Safety Can For Gasoline?

Gasoline is an extremely flammable liquid fuel. It should always be handled and stored properly in order to reduce the likelihood of fires and explosions. Personal injuries ranging from first degree burns to fatalities can result from improper handling and storage practices. Safety cans are designed to control the flammable vapors of gasoline and to provide a safe and convenient means for storage and transfer. Underwriters Laboratories (UL) approved safety cans should be used to carry, dispense, and store gasoline in quantities up to five gallons.

Failure to use approved metal containers for flammable or combustible liquids has often been cited by compliance officers. However, earlier this year, OSHA revised the rule on safety cans (1926.152(a)(1)), allowing D.O.T. approved plastic safety cans. It was further determined that these plastic containers need not be equipped with a spring closing lid, spout cover and flash arresting screen.

Nevertheless, many state safety codes and jurisdictions will allow only metal safety cans on the worksite, at least until local codes are changed. Construction managers may feel that plastic will not hold up as well under heavy use and handling. Whatever standards must be followed, it is important to understand the features and benefits of a safety container so that you and your co-workers can best guard against fire or explosion.

Approved safety cans have several basic design qualities:

1. They have a spring loaded cap that closes the spout automatically when released. Tension in the spring forces the cap closed and provides a leak proof seal.
2. The spring tension is also designed to lift the cap slightly in the event of excessive internal vapor pressure inside the can. This automatically vents off vapors at approximately five psi internal pressure, to prevent the can from rupturing or exploding if it is exposed to excessive outside heat.
3. The spout is also equipped with a flame arrester screen designed to prevent outside fire from reaching the gasoline inside the can. This is the same type of screen that is found in marine gasoline engine carburetors. With the screen in place, if the can is involved in a fire, the vapors will burn around the spout, but will not permit an internal fire or explosion. This screen must not be removed or damaged. Sometimes safety cans are also used to hold thick liquids such as lubrication oil, which is not recommended. Since the heavy liquid will not pass through the screen, the screen is often removed, defeating an important safety feature of the container.

Finally, it is extremely dangerous to carry gasoline--even in a safety can--in the trunk of a vehicle. If the trunk heats up from the sun, the contents of the can will expand and pressure will raise the spring cap. This permits vapors to accumulate in the trunk, and an explosion may result.



Do your part to prevent fires that can lead to serious burns, loss of life and significant property damage. Whether it is required or just good sense, always use approved safety cans when handling gasoline or other flammable liquids. Periodically inspect the cap, spring and flame arrester screen as well, to be sure it will provide the safety you expect.

Why take chances?



SEC-OPS SAFETY TAILGATE GUIDE

Wildlife Safety Precautions

Employees in field assignments and/or remote locations sometimes encounter deer, mountain lions, coyotes, raccoons or bears while on the job. To protect you and stay safe in the event of a wildlife encounter, understand animal behavior and learn how to respond appropriately.

Wild animals generally avoid human contact, but if you do see an animal in the wild, maintain your distance. Don't attempt to feed, catch or pet a wild animal. Never approach wildlife babies or animal mothers with their babies; the mother's protective response can be very fierce. Report injured or aggressive animals to authorities; don't attempt to give aid to injured wildlife. If an injured animal approaches you, move slowly away.

Mountain lion sightings are rare, but they have been known to attack humans. If you do encounter a mountain lion, don't run. Stay calm and hold your position or back away slowly. Convince the animal that you're not prey and that you might be dangerous.

Face the lion and try to appear as large as possible by standing upright and raising your arms. If the lion acts aggressively, wave your arms and shout. Grab a stick or throw objects at the lion. If you are attacked, fight back.

Bears try to avoid people, but if you do see one, make as much noise as possible. Do not corner a bear. If the bear feels trapped, it may act aggressively. To avoid attracting hungry animals don't carry food products, don't keep food near you, and don't leave food in your opened vehicle.

Normally, coyotes and deer are not a threat to humans. When driving, watch for deer crossing signs. Adjust your speed according to the distance you can see up the road. If you see one deer cross the road, wait for others because they often travel together.

If you cannot avoid a deer or other animal on the road, it's better to hit it rather than risk skidding off of the road and into a ditch or swerving into another vehicle or tree.

Wildlife encounters can expose you to rabies, a disease that causes brain swelling and death. Because the virus that causes the disease is present in animal saliva, a bite or even a lick from an infected animal can be serious. Infected animals may not show the symptoms of rabies such as frothing at the mouth. They may act aggressive or out of character, such as a nocturnal animal being active during the day. Avoiding animals is the best prevention for rabies, but if you are bitten, scratched, or licked by a wild animal, wash the area with soap and water immediately. If it is possible and safe to do so, try to trap the animal for testing. Seek medical treatment right away. If you are in frequent contact with wild animals, there are vaccines available to prevent rabies.

For safety, keep your distance and keep your cool when encountering wild animals.



PERSONAL PROTECTIVE EQUIPMENT

Personal protection equipment is provided for your safety. Accidents, which dismember or disfigure are needlessly costly to you and to us. We will make you a deal – we provide, you use.

Head

(1) When working in designated “Hardhats Areas”, Hardhats must be worn at all times. When working under or near other people, a danger of falling or flying objects always exists. Therefore, Hardhats must be worn.

(2) When there is risk of hair entanglement in machinery, combustibles or toxic contaminants, confinement of the hair by such means as hairnets may be necessary.

Eyes & Face

(1) You must wear proper eye or face protection when you are exposed to flying particles, dust, objects, chemicals or harmful light rays. Welding, grinding, use of radial arm saw and concrete chipping are examples of operations requiring the use of appropriate eye protection. If none has been provided, do not proceed with the operation until it is provided.

(2) Eye or face protection equipment must be kept clean and in good repair. Such equipment with structural or optical defects is prohibited from use.

(3) Wash chemicals from the eyes with large quantities of clean running water, blinking the eyes repeatedly, then get a doctor immediately.

(4) If dust or small particles get into your eyes, do not rub them. Get prompt first aid, or call a doctor.

(5) Allow only a doctor or qualified nurse to remove anything from your eyes.

A. Must know location of and driving time to the nearest Medical Facility and Fire Station.

(6) When eye protection is required and you need vision correction, one of the following must be worn:

A. Safety spectacles with suitable corrected lenses. B. Safety goggles designed to fit over glasses.

C. Protective goggles with corrective lenses mounted behind the protective lenses.

D. An acceptable First Aid Kit must be in all field vehicles. Also a “Fanny Pack” First Aid Kit must be worn while working quite a distance from the vehicles.



Ears

(1) Hearing protection is available upon request. Designated areas and or specific job tasks may require their use, such as breaking concrete or working in enclosed areas. Plain cotton is not an acceptable protective device. If you are working in an area you feel the noise level warrants hearing protection, request such protection, from your supervisor.

Nose

(1) Contaminated air shall be controlled as far as it is feasible by accepted engineering control measures. When effective engineering controls are not feasible, respiratory equipment may be required in areas where health hazards exists due to accumulations of harmful dust, fumes, mists, vapors or gases.

Body

(1) You must wear clothing suitable for the work you are doing. The minimum attire is long pants and a shirt. No shorts are allowed. No bare torsos are allowed, even in hot weather.

(2) Shirt-tails must be tucked in and jackets must be buttoned or zippered to prevent snagging or being caught in machinery.

(3) Clothing saturated or impregnated with flammable liquids, corrosive substances or oxidizing agents must be removed promptly, and shall not be moved until properly cleaned.

(4) Safety vests must be worn at all times.

Hands

(1) You must wear gloves when handling material or substances, which could cut, scratch, tear or burn the hands.

(2) Gloves must be in good condition. Worn or tattered gloves are more dangerous than no gloves at all.

(3) Electricians using insulated gloves must test their gloves daily for defects. (4) When using a knife, wear steel mesh gloves.

(5) Wear heavy canvas or leather gloves or hand pads when handling rough materials. Never wear gloves around power saws or other moving machinery.

(6) Wear rubber gloves when working with acids and caustic solutions.



Feet

- (1) You must wear sturdy work shoes. Shoes must have thick soles to prevent punctures – thin soles, sneakers or sandals are not permitted.
- (2) Shoes should be laced up high enough to give ankle support. (3) Shoes should be steel – capped to prevent toe injuries.
- (4) Rubber boots must be worn working in concrete, mud or water.
- (5) Steel foot – guards are to be used when operating a tamper or concrete breaker. (6) Footwear which is defective or inappropriate to the extent that its ordinary use creates the possibility of foot injuries shall not be worn at the construction site area.

Ladders

- (1) Must be tied off. (2) Must be secured.
- (3) Must extend 3 feet above landing (floor).

Scaffolding

- (1) Must have fall protection. (2) Must have toe boards.
- (3) Must be properly secured to building or structure.

Grading Area

- (1) Equipment/operator must know where you are. (2) You must know where equipment/operator is.
- (3) Be aware of unattended tripods
- (4) Be aware of tapes which cross traveled areas near equipment. (5) Watch for equipment moving or hauling materials.
- (6) Watch out for “Swing” of cranes

A. Counterweight

B. Extension of outriggers

- (7) Watch out for overhead loads or temp wires.
- (8) Watch out for unprotected openings in floors and on roof. (9) Watch out for elevators shafts or windows.
- (10) Treat all exposed wires as energized (“hot”).
- (11) Do not look directly at “welding operations” (sand in eyes). (12) Observe special procedures for entering existing manholes.



(13) Entering open trenches greater than 4 feet deep, observe the following: A. That they are shored properly.

B. That they are sloped properly.

C. That no material is stored next to the top of trench. D. That you can walk along the top of the trench.

E. That ladders placed in trench for ingress and egress is at 50 ft. intervals. (14) Attend the contractor's toolbox or safety meetings on site if possible during your shift.

(15) Be sure that "flaggers" have proper paddles (when needed) and 2-way radios.

Note from Sec-Ops President:

Remember, OSHA is not an approval agency. OSHA does write equipment standards and borrows other from various sources, most of the time from ANSI (American National Standards Institute). Under no circumstances will OSHA approve a product. It is, however, correct to say that equipment "meets OSHA standards."