



ALL STATES MECHANICAL, LLC

Safety Manual



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1. SAFE PRACTICES POLICY

To comply with OSHA rules and to create the safest environment practical on its projects, All States Mechanical, LLC adopts and will enforce the following Code of Safe Practices:

1. Compliance with all applicable OSHA, state, and local safety requirements is required of all employees, subcontractors, and visitors coming on site for whom All States Mechanical, LLC or its subcontractors are responsible.
2. Superintendents will conduct a cursory inspection daily and a formal inspection each week to spot safety infractions and poor housekeeping. Each Superintendent will document such daily and weekly inspections, including any remedial measures taken, to assure a safe work environment
3. Superintendents will conduct Safety Meetings weekly. All, All States Mechanical, LLC employees and subcontractor foremen are required to attend.
4. Subcontractors are responsible for the safety training and compliance by their employees with all OSHA, as well as All States Mechanical, LLC safety requirements.
5. All employees and subcontractors are obligated to point out any unsafe conditions present so that All States Mechanical, LLC may correct them.

The following identifies some specific policies:

- a. **CLOTHING:** OSHA approved hard hats must be worn at all times. All employees must wear sleeved shirts (preferably long sleeves), long pants, and good shoes adequate for the work being performed. Canvas or athletic shoes and shorts are strictly prohibited on the job site. All States Mechanical recommends and prefers that its workers wear steel toed shoes. Workers must wear personal protective equipment – for example, goggles, earplugs, gloves, and so forth – as appropriate and consistent with safe practice and common sense. During



inclement weather, all workers should wear appropriate clothing as necessary to assure that they remain warm and dry. At their discretion superintendents require any employee who is not appropriately dressed consistent with this policy to leave the jobsite.

- b. **HOUSEKEEPING:** Good housekeeping practices are ongoing requirements for every employee and subcontractor. All States Mechanical, LLC employees and responsible subcontractors must immediately remove or otherwise make safe any and all materials, tools, and debris that create unsafe conditions. As appropriate, All States Mechanical, LLC will charge the expenses for such remedial action to any responsible subcontractor(s) who fails to satisfy this requirement.
- c. **EQUIPMENT/TOOLS:** Superintendents must check scaffolding, hoists, vehicles, power tools, electrical cords and apparatuses, and other equipment as appropriate, to be checked periodically to ensure that they are in safe working condition. Proper grounding of electrical tools and approved methods of scaffold construction and erection are priorities. Ladders must be approved for construction use in accordance with safe practices.
- d. **WORK AREAS:** Holes, pits and ledges near work areas must be barricaded or guarded. Spills on floors must be cleaned up at once. Special precautions as necessary to maximize safety must be where cranes are operating, under scaffolding, and where framing is in process. Employees and subcontractors must be especially alert and cautious where earth moving equipment, backhoes, or other machinery is being used. Each worker must follow safe, common sense precautions around welding and cutting operations.
- e. **SAFETY DEVICES:** Fire extinguishers must be available in fire hazard areas, and their locations clearly marked. Appropriately stocked first aid kits of appropriate size must be readily available on the jobsite and in marked locations. Superintendents are responsible for assuring that all workers under their supervision know where fire extinguishers and first aid kits are located.



- f. **EMPLOYEE CONDITION:** In no instance should any employee of All States Mechanical, LLC or of any subcontractor come onto the jobsite while under the influence of alcohol or illegal drugs. Violation of this policy will result in immediate ejection for the site and, in the case of All States Mechanical, LLC employees, and immediate termination. In the case of subcontractor employees, All States Mechanical reserves the right to terminate the subcontract and to replace the subcontractor. The superintendent is to be notified if any employee or subcontractor employee is seriously ill or if any worker is taking legally prescribed medications that may cause drowsiness or otherwise interfere with safe job performance must notify the superintendent.
- g. **HORSEPLAY OF ANY NATURE IS PROHIBITED.**
- h. **EACH SUBCONTRACTOR** will comply with OSHA 1926.59 Hazard Communication Standard - Employee Right to Know. Subcontractors must inform the Superintendent regarding all hazardous chemicals/materials in use on the project. Superintendents must educate each employee concerning toxic and hazardous materials, and where reference information is kept concerning hazardous materials.

This Code of Safe Practices is the foundation for All States Mechanical, LLC's job-safety program. Any employee who fails to comply with this policy will be subject to disciplinary action. The Code of Safe Practices is not, however, all-inclusive. No policy can ever be. Hence, in addition to the specific, written guidelines and policies set forth above, each of All States Mechanical, LLC 's employees has a general duty to conduct himself or herself at all times on the job in a safe and reasonable manner that is protective of the employee and the employee's fellow workers employees. Any willful disregard of safe work practices is cause for immediate dismissal.



2. SUMMARY OF DRUG POLICY

The following is not a full statement of All States Mechanical, LLC's Drug Policy; it nevertheless represents a fair summary of that policy as it relates to job safety. Please note that All States Mechanical endeavors to hire only employees who do not use illegal drugs or abuse legal drugs or alcohol. All States Mechanical, LLC will not tolerate drug impaired employees on the job and will discipline any employee discovered to be using illegal drugs, on or off the job. To help enforce this policy All States Mechanical, L.L.C. does periodic, random drugs test on employees. Any employee who refuses to take a screening test, when asked to do so, will be immediately terminated.

All States Mechanical, LLC prohibits the use, possession or distribution on its premises, or in its workplaces, of any of the following: alcoholic beverages, intoxicants, narcotics, illegal or unauthorized drugs, and drug paraphernalia. Company employees shall not report to work under the influence of any drug, alcoholic beverage, narcotic, or mind altering substance. This includes legally prescribed drugs and medicines which will in any way adversely affect working ability, alertness or coordination, or otherwise adversely affect the safety of the employees and others at the jobsite. Consistent with the intent of this policy, All States Mechanical, LLC reserves the right, with reasonable cause and without notice to eject any employees who are under the influence from its jobsites and premises. Any such employee is subject to immediate termination. Any employee discovered distributing illegal drugs at an All States Mechanical LLC jobsite will be immediately terminated. The company may, in its discretion, report use, possession, or distribution of any illegal substance to law enforcement officials and turn over to the custody of law enforcement officials any such substances or persons using, possessing, or distributing them.

Legally prescribed drugs may be permitted on Company premises and work locations, provided the drugs are contained in the original prescription container and are prescribed by an authorized medical doctor for the current use of the person in possession. Each Employee who is taking prescribed medication must inform his physician of his job duties and inform his supervisor of any such medication which would restrict him in performing his duties in a safe and efficient manner. In any such



instance, the company will extend every reasonable effort to accommodate such individual's condition, by limiting his work to those duties that he may safely perform.

All States Mechanical, LLC reserves the right to test employees or perspective employees for the presence of illegal drugs at any time and for alcohol impairment in the event of an accident. Employees involved in a work-related accident or injury must submit to drug screening on the same day as the accident or injury. Failure to do so will result in immediate termination.



3. HARD HATS

The use of hard hats is mandatory on all Jobsites.

1. Ensure the suspension inside the hard hat is in working order with all parts in place. Proper suspension allows both protection and proper ventilation.
2. Inspect your hard hats for damage or cracks.
3. Wear your hard hat squarely on your head so that, in the event of an accident, it will distribute the force of any impact more evenly.
4. Hard hats can save your life. USE THEM!



4. EYE SAFETY

Approximately 3 people will go blind this week because of accidents at work. Of more than 1000 industrial eye injuries that occur every working day, over 90 percent are preventable. Here are some good ways to prevent eye injuries:

1. Always wear your safety glasses when there is even the slightest danger of flying particles, springing steel straps, or similar circumstances, and when you are working with harsh chemicals or compressed air.
2. If a nearby worker is doing a job that requires eye protection, you should wear it too.
3. Contact lenses do not protect your eyes. Some employees have been blinded or have lost some of their vision when small particles got caught between their contact lenses and their eyes.
4. Replace scratched, pitted, or otherwise damaged safety glasses immediately.
5. Forget all the excuses for not wearing safety glasses. It takes only a second to lose an eye!



5. SUBSTANCE ABUSE IN THE WORK PLACE

FACTS: One in every 10 U.S. workers abuses Alcohol and/or Drugs and each of those people costs his employer an average of 25% of his wages in lost productivity. Alcohol and Drugs affect the employee's judgment, performance, and, most of all, job safety – including putting fellow workers at risk. Research shows that Drugs and Alcohol often affect the user 24 hours after their use. Alcohol and Drugs are a major cause for increased health care costs because of the many health risks they pose. A few examples include the following:

1. Marijuana Use: Linked to Lung Cancer
2. Cocaine Use: Linked to Heart Attacks
3. Heroin Use: Linked to Aids, Hepatitis, and overdose
4. Alcohol Use: Linked to Cirrhosis of the Liver and several kinds of Cancer including pancreatic cancer, one of the most deadly of all cancers
5. Amphetamines: Linked to Strokes, Mental disorders, and Overdose
6. Barbiturates: Linked to Mental Disorders and Overdose

Many say Drug and Alcohol use is a private matter and not a work place issue. But safety and performance make this a jobsite issue! It is a safety issue that All States Mechanical takes very seriously.



6. SAFETY ALWAYS

Accidents happen quickly and unexpectedly, what can you do?

1. Always wear proper protective clothing and hard hats. This includes safety glasses and steel toed boots when necessary.
2. Look ahead for possible dangerous situations and take necessary safety actions to prevent the accident from occurring.
3. Use the buddy system. If you see a fellow worker putting themselves in a possible dangerous situation, let them know.
4. Be positive in your outlook on safety. Good safety habits will not slow down productivity. They will help to assure it.
5. Be a good housekeeper by keeping materials from building up on floors to prevent tripping hazards.
6. Wear appropriate back support apparatus when moving or lifting. Learn how to lift safely – that is lift with your legs, not your back. Improper lifting technique is one of the top causes of workplace injury and lost time and income – not to mention disabling pain.
7. Report unsafe conditions to your superintendent even when such conditions were caused by the general contractor or another trade or company.
8. Always replace barricades and cables to prevent accidents.



7. SAFE STORAGE

Safe storage of materials will avoid many potentially dangerous situations.

1. When stacking palates or boxes make sure the ground below is solid. Never stack too high.
2. When storing pipe, make sure it is off the ground and that wedge blocks are in place to keep the pipe from rolling.
3. Never store materials where they may block a fire exit or access to a fire extinguisher.
4. Do not store trash. Dispose of it properly and as soon as possible.
5. Never store gas or flammable products near open flames or intense heat.
6. Oxygen and Acetylene bottles need to be stored upright and tied off to prevent tanks from falling over. Do not store oxygen and acetylene together, you must have them 20 feet apart.
7. Store cables, ropes, chains, and slings in dry areas out of the weather to prevent rust or decay. Weather-caused deterioration of these and similar items can cause serious accidents.
8. When moving stored items with a forklift, make sure the load is centered and no loose objects are on top of the load.



8. SAFETY SHOES

The following are some misconceptions about wearing safety shoes:

1. Safety shoes are not heavier than regular shoes. The steel toe cap on a safety shoe weighs approximately an ounce and is not noticeable to the wearer unless there's an accident.
2. Safety shoes do not keep the feet too warm or not warm enough in the winter. They function like any other shoe. Wear warm socks during colder months and thinner socks in warmer months.
3. Although safety shoes cost more, the extra cost results in greatly reduced risk of broken toes and mangled feet.
4. Safety shoes are as comfortable as regular shoes unless you have some sort of foot problem requiring special shoes.
5. 12 out of 100 work-related accidents damage the feet and toes. Don't take chances! Protect your feet by wearing safety shoes!



9. EARPLUGS

Constant exposure to loud noise can cause permanent hearing loss. Exposure to higher noise intensities must be limited to shorter periods of time to avoid damage to hearing.

1. Wear earplugs on the job when noise levels are high.
2. Wear both earplugs and earmuffs when the noise level exceeds 120 decibels. (Jack hammers produce noise levels above 120 decibels)
3. Earplugs screen higher pitched, ear-damaging noises, while allowing lower pitched sounds through so you can hear voices.

Over 20 million people have measurable hearing loss. The reason so many suffer from it is that few people take steps to limit or prevent exposure to ear-damaging noise. Don't make this mistake!



10. HANDS AND FEET

Hand injuries account for nine of every 100 serious, job-related injuries. Unfortunately, most of us take our hands for granted until we injure or lose one.

1. Never reach into moving machinery to adjust or repair it. Shut it down first.
2. Always check to make sure all machine guards are in place before operating any machine, even if it's only going to be for a two minute job.
3. Always wear protective gloves when handling abrasive or sharp-edged materials.
4. Never wear gloves, rings, or other easily caught clothing or jewelry when working around moving machinery parts. The results can be disastrous.



11. LIFTING LOADS SAFELY

Steps you can take to make sure you're lifting correctly:

1. The lifting position should be comfortable.
2. The load should be kept close to the body as it's lifted and carried.
3. The lift should be made with a smooth, continuous motion.
4. Lift with your leg, not your back. Keep your back straight when lifting.
5. Avoid twisting your body while lifting or carrying. If you must turn, point your leading foot in the direction you intend to go before making your direction change.
6. A firm grip is important. Keep your hands clean and wear gloves if necessary.
7. Guard your fingers as you unload the material.
8. If the load is too heavy, use a mechanical lifting device or get help from another worker.



12. FIRE PREVENTION

Approximately 12,000 people are killed by fire each year. How can you prevent fire at the jobsite? Start by common sense and good housekeeping.

1. Keep fire extinguisher ready and stairways and walkways clear.
2. Make sure your fire department's telephone number is prominently displayed.
3. Be well versed on which extinguishers to use on what types of fire.

Wintertime is a bad season for on-the-job fires due in part to use of temporary heaters in or near areas containing large quantities of combustibles. Being aware of potential fire hazards is the best protection you have against a fire catastrophe.



13. MOTOR VEHICLE SAFETY

Even the most careful drivers can have accidents if their attention is distracted. Some of the most common distractions are:

1. Items on the dash such as pens and other small objects can fall down the vent, while papers can blow in your face or out the window. Other items such as sunglasses could be thrown toward you if you have to stop suddenly.
2. Items stored over the sun visor or the visor itself can drop down causing all the material to fall in your lap.
3. An insect in the vehicle can be a very dangerous distraction. If the insect doesn't fly out when you roll down the window, either prepare to be bitten or pull over to get rid of it. Stay calm! A panic reaction can result in a whole lot more injury than the insect bite would cause.
4. Clutter on the floor, beverage cans, bottles or other items can roll under the foot pedals as you drive.
5. Cigarettes and other objects that are dropped while driving can cause injury when the driver attempts to retrieve the dropped item. If you drop a cigarette under the seat or drop something in your lap, pull over and come to a full stop before looking for the item.
6. Reaching for items in the glove compartment, looking at road maps and taking off or putting on a jacket are unsafe to perform while driving. Pull over!



14. ELECTRICAL SAFETY

Even though we all use drills, saws, buffers, sanders, extension cords, and other electrical devices, most of us know very little about electricity. Here are some things you should know:

1. Low voltage can kill you. Many workers are killed by 115 volt circuits. A shock resulting from contact with only 15 milliamperes of current can kill. At 115 volts, a five watt bulb pulls 50 milliamperes of current.
2. The human body can act as a poor conductor or a good conductor depending on the duration of contact with the flow of current and on the condition of the person's skin – whether wet or dry -- and the area of contact. If your hands are sweaty, your shoes or socks are moist, or the floor is wet, the current can pass more easily through your body and increase the severity of the shock.
3. Nothing looks more harmless than an extension cord. But even this can be dangerous if misused.
 - Use only cords tested and approved by Underwriters Laboratories (UL)
 - Coil the extension in large loops.
 - Don't subject cords to strain or put them where people step on them.
 - Don't repair them yourself, get new ones.
 - Use special types of cords if needed. For example, cords can be water resistant, insulated for heat resistance, or designed to withstand the action of solvents and other chemicals.
4. Rules for electric tools and appliances.
 - Make sure the ground pin is intact before plugging into any receptacle.
 - Use extreme caution when working with portable electric power tools in wet or damp places.
 - Report frayed or broken cords.



- If you get a shock from equipment, report it.
- Make certain you use only grounded or UL-listed equipment.



15. SAFE HAND TOOL USE

Most accidents with hand tools occur for one of three reasons:

5. The tool is defective.
6. The wrong tool is chosen for the job.
7. The tool is used incorrectly.

Fortunately most disabling hand tool injuries can be prevented. The following are several steps you should take for safe tool use:

1. Maintain your tools carefully. Keep them clean and dry and store them properly after each use to prevent them from becoming damaged.
2. Inspect your tools before each use. Striking tools with burred or mushroomed heads should be dressed or discarded. Splintered or loose handles on tools should be replaced and cutting tools should be kept clean and sharp.
3. Use the right tool for the job. Using substitutes increases the chances of injuring yourself and also of doing a poor job. Never apply excessive force or pressure to tools, instead select the right size and type needed to ensure that the job will be done safely.
4. Use hand tools correctly. To avoid injury, cut away from yourself when using edged tools. Never hold work in the palm of your hand when using a cutting tool or a screwdriver.
5. Wear the proper protective equipment when using hand tools.
6. Never carry tools, especially pointed or cutting tools in your pockets. Use a toolbox or belt.



7. Make sure that there is adequate lighting in your work area. You are not being safe unless you can see what you're doing.



16. LADDER SAFETY

Improper ladder use leads to falls. Falls translate into broken bones/ concussions, or worse. You can minimize the chance of injury by making sure you use ladders properly. Here are some tips in ladder safety:

1. Use the right type of ladder for the job. An extension ladder shouldn't be used unless there is a firm structure to lean it against. Neither should a worker use a 1 foot folding ladder to reach a shelf 12 feet high.
2. Before using a ladder, examine it for cracks, splits, and loose rungs or treads.
3. Be sure extension ladders are long enough. The rails should extend at least 3 feet above the area to be reached.
4. Watch ladder placement. Place the ladder on a substantial base and use a 4 to 1 pitch.
5. Before climbing a stepladder, make sure the folding metal braces are locked in a fully extended position.
6. Secure the ladder at the top to prevent movement. Secure the tie to the rail not to the rung.
7. Face the rungs when climbing the ladder and use both hands going up and down.
8. Avoid overreaching when working from a ladder.
9. One ladder, one person. Two overweight people could cause a ladder to collapse.



10. Take care of ladders and they will take care of you. Store them in ventilated areas away from moisture to prevent the wood from rotting and the metal from rusting.



17. FIRE DOORS

A typical fire door is made so that it will automatically close when the temperature in its vicinity reaches a specified level. Once a fire door has closed, it will prevent a fire in one area of a building from spreading to another for as long as three hours. During that time, automatic sprinklers and other fire-fighting devices can be used to put out or cool down the fire. Take the following precautions for safe fire door operation:

1. Make sure that the fire door openings and the area surrounding them are clear. Never store flat-backs, pallets, skids, or other objects near them.
2. Report to supervisor if you notice that a fire door isn't in good operating condition; for example, if a binder or the hood over a rolling steel door has been bent or if guides need lubrication.

Fire doors are valuable only if they can close in the event of fire. Make certain that they can!



18. VOLATILE SUBSTANCES

Cleaning fluids, plastic cements, some glue, paint thinner, gasoline, cigarette lighter fluids, insecticides, industrial solvents, and hair sprays are all volatile substances. They vaporize readily at a relatively low temperature. Breathed for too long a time in large amounts, the vapor from them can cause dizziness, nausea, intoxication, and even coma or death. They all are highly flammable. The following tips will ensure their safe and healthful use:

1. Always read and follow instructions or cautions before using.
2. Use only in well ventilated rooms or work areas.
3. Don't keep fluids in an open container while working. Never leave cans or bottles open after use.
4. Store containers away from direct heat or flame to reduce the chance of fire or explosion.
5. Store the cloths used to apply or wipe up any of these substances in a closed metal container.



19. COMPRESSED AIR PRECAUTIONS

Using compressed air has become routine for drying parts and for blowing dust and dirt from equipment. As a result, we tend to forget that there are dangers arising from misuse that require extra precautions and awareness.

1. Take the following precautions when using compressed air:
2. Use compressed air cleaning devices only as a last resort and make sure static pressure is no more than 30 psi.
3. Examine all air hose connections to make sure they're tight and won't loosen under pressure.
4. Check the air hose to make sure it's in good condition before turning on the air. Turn off the valves on both the tool and the air line after the job is completed.
5. Don't kink the hose to stop the air flow. Turn off the air at the control valve.
6. Never point a compressed air hose nozzle at any part of your body or at another person.
7. Before using compressed air, make sure dirt from the equipment being cleaned won't be blown into the faces of other workers in the area.
8. To prevent flying dirt, cover or shield equipment with canvas while cleaning.
9. Always wear eye protection while cleaning.



20. POWER TRUCKS

Too many careless workers are seriously injured or killed because of improper operation of industrial power trucks. Make sure that neither you nor anyone on the jobsite is injured because of carelessness, follow these rules:

1. Never operate a power truck unless authorized and properly trained to do so.
2. Always obey posted speed limits within building. Make certain you'll be able to stop quickly and safely.
3. Maintain a safe distance, three truck lengths, when following another vehicle.
4. Maintain a safe distance from the edge of ramps or elevated platforms.
5. Slow down when rounding corners, when floors are wet, when on ramps and bridge plates, and at all intersections.
6. Obey any No Rider regulations.
7. Don't overload trucks, keep within specified weight limits.
8. Be sure loads are well-balanced before putting the truck in motion. If necessary, secure the load to the truck to prevent the load from toppling.
9. Don't allow a load to block your forward view.
10. When loading or unloading, always secure the truck wheels to prevent rolling.



21. ZERO MECHANICAL STATE

It is important to your safety to lock out any machine or piece of equipment before you clean, adjust or repair it. The machine should be in Zero Mechanical State or ZMS before you begin work on it. ZMS means that you've reduced to a minimum the chance of an unexpected mechanical movement of any part of the machine. ZMS is important because not all machines are powered just by electricity. Some are powered by hydraulic and pneumatic devices as well. The following are steps for assuring that a machine is in ZMS:

1. Be sure the machine has stopped moving completely before starting to work on it.
2. Release stored energy that could cause sudden movement. Drain the pressure on those parts and lock off.
3. Lock off or reduce accumulators and air surge tanks to atmospheric pressure.
4. Secure loose and movable parts before you begin.
5. Be sure that material that is supported or controlled by the machine cannot move or cause the machine to move.



22. MACHINE GUARD SAFETY

Machine guards fall into four categories:

1. **Enclosure Guards** are preferable to all other types because they prevent access to dangerous moving parts by enclosing them completely.
2. **Interlocking Guards** prevent operation of the control that sets the machine in motion until the guard or the barrier is moved into position.
3. **Automatic Guards** prevent the operator from coming in contact with the dangerous machinery parts while the machine is in motion.
4. **Remote Control Guards** may be used to protect the operator from dangerous points of operation.

When working with guards, follow these rules:

1. Never adjust or remove a guard, a barrier, or an enclosure for any reason unless you're authorized to do so and have been trained to do the job safely.
2. Make sure the power is turned off and the main switch locked out and tagged before removing any safeguards so that adjustments or repairs can be made.
3. Never start a machine unless the guards are in place and in good condition.
4. Replace defective or missing guards immediately.
5. Do not work around or on mechanical operating equipment while wearing loose clothing, watches, rings or other jewelry.



23. MISCELLANEOUS SAFETY CONCERNS

The following are hidden hazards you should lookout for on the jobsite:

1. Dangerous wall projections and unguarded shafts or openings.
2. Oil and water leaks and liquid spills.
3. Frayed electrical cords and accumulations of trash are potential fire risks.
4. Discuss on-site safety concerns.



24. ELECTRICAL SHOCK

If someone on the jobsite receives a severe electrical shock, immediate action is necessary to save a shock victim's life. Follow these steps carefully:

1. First check to see if the shock victim is still in contact with the electric current. Don't assume the jolt has thrown him clear - instead he may be frozen to the source of electric discharge. If so, don't touch the victim until contact with the source is broken. The current running through his body can travel through yours too.
2. Immediately shut off the current at its source. If this isn't possible, use a broom handle, an unpainted pole, a branch, a dry loop of cloth, a rope or some other dry, nonconducting material to free the victim from contact with the live wire or the conducting object.
3. As soon as you're positive that current is no longer running through the victim's body, check his breathing. If it has stopped, begin mouth to mouth resuscitation at once. Don't stop until you're sure he can breathe normally on his own again. Continue to monitor his breathing until medical help arrives.
4. The victim of electric shock should be thoroughly checked by a doctor.



25. ELECTRICAL FIRES

Almost a quarter of all business and industrial fires are electrical in nature. You should make certain that you know how to put out an electrical fire quickly and safely.

1. If possible, shut off the electrical power at its source as quickly as possible after an electrical fire is discovered. This will help to keep the fire from spreading.
2. If you cannot turn power off at the main switch or can't unplug the piece of electrical equipment, do not use water or water-based agents in an attempt to extinguish the fire. Electrical current can travel the stream of liquid and deliver a fatal shock to you.
3. Put out electrical fires (Class C) with a nonconducting agent. Class C fires are those that involve energized electrical equipment. Extinguishers that can be used on electrical fires are identified with the symbol "C" contained in a blue circle. The following are the portable fire extinguishers that are safe to use on a Class C fire:
CO2 Carbon Dioxide Liquid Gas (Galon) Dry Chemical (B,C) or (A,B,C)

26. EYE INJURIES IN CONSTRUCTION

Minor eye injuries are fairly common in construction; the wind blows a particle in your eye, it stings for a while, you wash it out and go about your business.

Serious eye injuries are also common. Eye injuries account for 6% of all injuries requiring lost work days, and one out of every 16 workers per year must see a doctor because of a work-related eye injury. There are also indications that some of minor injuries may increase your future risk of developing eye diseases, such as cataracts. Based on investigation of persons who suffered eye injuries, it seems that the only workers who wear eye protection are those whose employers require them to. This is troubling when you consider how important your eyes are to you. Scientists estimate that over 80% of all information you take in comes to you through your eyes.

The most common responses given by injured persons as to why they were not wearing eye protection were: "I did not think they were needed" and "They are not normally used or practical in my type of work". Therefore, it may be good to talk about some of the causes of eye injuries and discuss when eye protection is needed.

Seventy percent of eye injuries are caused by flying or falling particles. Four out of seven are caused by particles less than 1/5,000 of an inch in diameter, much smaller than the head of a pin. The eye injuries occur most often when small particles are present in the environment and that are introduced into the eye. Some of the operations that produce particles are: Cutting, Grinding, Chipping, Drilling, Spraying, Filing, Sanding, Scraping, Striking, and Digging. There are also natural sources such as dust. What are some additional sources? What can propel the particle into the eye? A partial list includes:

- Velocity of power tool, cutting, grinding, chipping, etc.
- Wind or air produced by the tool motor or blade.
- Compressed air used to clean areas or power pneumatic tools.



- Gravity -- particles falling from work or from working overhead.
- Impact such as a hammer striking a hard surface.

Just because you wear protection does not guarantee you won't have eye injuries. Wearing eye protection over the front of the eyes can prevent the direct impacts, but when you need eye protection, you must consider side shields, goggles, etc., depending on the operation. Of the eye injuries where eye protection was used, about half were due to particles entering the eye from the sides when only standard style eye glasses were used. Other injuries were from particles flying under or over glasses, in which cases goggles would have prevented the injury.



27. GLASS SAFETY

The rule when you are working around glass is to use extra care and caution. The following are tips to use so you or anyone else will not be cut by glass at the work place:

1. Be cautious when trying to open sticking windows, so that you don't put your hand through the glass. Push or pull on the window frame, not on the glass.
2. Wear safety shoes. A piece of glass dropped from any height can cut through soft leather or canvas shoes.
3. When picking up pieces of broken glass, use a broom and dustpan or a vacuum device for best results. Wear gloves if you pick up the pieces by hand.
4. Put stickers or decals at various eye levels on sliding glass doors or any large expanse of glass.
5. To make sure that you have removed all of the glass splinters when glass is broken, mop up the area with wet paper towels or a disposable rag.



28. FORKLIFT SAFETY

The following are rules for safe operation of forklifts:

1. Never work under the blades when they are up. If an adjustment of a load must be made, either lower the load or work to the side of it.
2. Never drive the lift while a load is in a raised position. Don't raise or lower a load while the truck is in motion.
3. Make sure the load is well balanced before moving the forklift.
4. Position the blades under the load as far as possible and tilt the mast back far enough to stabilize the load.
5. Inspect the forklift for any defects before each operation.
6. Heed the load capacity of the lift your operating and don't exceed the load limit.
7. Never fuel a lift while the engine is running.
8. Use only fire-safe solvents to clean lint and excessive grease or oil from the lift.
9. When you're finished using the lift, remove the key or the connector plug and leave the controls in neutral with the blades down. When the forklift is parked on an incline, chock the wheels to prevent rolling.