TRINITY CODE OF SAFE PRACTICES

General Safe Practices

- All persons will follow these safe practices rules, render every possible aid to safe operations, and report all unsafe conditions or practices to managers or supervisors.
- Managers and supervisors will insist on employee's observing and obeying every rule, regulation, and order as is necessary to the safe conduct of the work, and will take such action as is necessary to obtain observance.
- All employees will be given frequent injury and illness prevention instructions.
- Anyone known to be under the influence of drugs or intoxicating substances which impair the employee's ability to safely perform the assigned duties will not be allowed on the job while in that condition.
- Running, jumping, horseplay, scuffling, and other acts which tend to have an adverse influence on the safety or well being of the employees will be prohibited.
- Work will be well planned and supervised to prevent injuries in the handling of materials and in working together with equipment.
- Employees will be instructed to ensure that all guards and other protective devices are in proper places and adjusted, and will report deficiencies promptly to the manager or supervisor.
- Employees will not enter underground vaults, chambers, tanks, manholes, silos, or other similar confined places that receive little ventilation, unless it has been determined that it is safe to enter.
- Employees will not handle or tamper with any electrical equipment, machinery, or air or water lines in a manner not within the scope of their duties, unless they have received instructions from their supervisor or manager. Respect electricity under all circumstances. Never use electrical equipment in areas of excessive moisture unless all safeguards have been taken. Electric power tools are grounded thru approved cords, including extension, for your safety. Never remove or alter polarized cords or plugs.
- When lifting heavy objects, the large muscles of the leg instead of the smaller muscles of the back will be used. Learn and practice the proper way to lift or carry material or any object. Do not operate any type of powered material handling or hoisting equipment unless authorized. Get help in handling heavy or bulky loads.
- Stay clear of heavy earthmoving equipment. Remain aware of warning devices such as bells, horns or whistles. Hard hats are mandatory; always wear one on any construction job. Use other protective gear as recommended when exposed to unusual hazards. Never attempt an operation with which you are not familiar, ask first for specific instructions. Wear suitable work clothes at all times, heavy soled shoes protect against puncture injury.
- Basic first aid is of value in the event of injury. Know how, it may save a fellow workman from death. Never attempt to move a person who may possibly suffer from an injured spine or other internal injury unless proper methods are completely understood. All injuries will be

reported promptly to the supervisor or manager so that arrangements can be made for medical or first aid treatment.

- Accident Prevention: All persons must abide by Construction Safety Orders, General Industry Safety Orders and Company rules. Posters and other safety material are displayed for the benefit of employees, read and abide by these suggestions. Give every possible aid in the event of injury.
- Accident Reporting: Report all personal injuries to a superior immediately. Obtain authorization for any medical attention off the job. Medical release is necessary before returning to work.
- Job Site: Keep work areas free of debris, good housekeeping is essential. Remove or correct any hazards. Never work or pass under suspended loads or equipment.
- Work Habits: Assist other trades when necessary to maintain safe operations. Never place yourself, or allow others to work in a dangerous position. Use the right tool or equipment for all work. Use of any alcoholic beverage is strictly prohibited on the job. Don't be party to horseplay, pranks can be fatal. Construction sites offer unusual hazards, walk and work with all due respect for them.
- Hand Tools: Always Use the proper tool and maintain them in good condition at all times. Loose or broken handles, mushroom heads, dull blades, improper size or type of tool should never be used.
- Power Tools: Power activated tools must only be used by licensed personnel. Know the proper method of using, a skill saw; never block back the retractable guard it is for your protection. Never use a tool with which you are not fully experienced.
- Protective Devices: Hand or guardrails, protective covers, toe-boards, ramps and safety devices installed on various tools are for your safety. Do not tamper with, remove or damage these protective measures. Replace, correct or report any unsafe guard or device.
- Transportation: When transportation is necessary in other than a passenger vehicle, ride in the cab or sit, do not stand on the bed of the truck. Never ride with arms or legs over the sides, do not sit on the tailgate; it must be closed during transportation of passengers. Be careful of any tools, material or equipment within the truck body which may shift or slide causing injury.
- Flammables, Solvents: Never use gasoline or other highly volatile liquids for cleaning purposes. Oxygen and acetylene cylinders can be dangerous, secure against rolling or tipping. Do not expose tanks or containers that may contain explosive vapor or liquid to open frame or spark

Special Note: Non-compliance with these regulations will result in disciplinary action.

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HAZARD SPECIFIC CODE OF SAFE PRACTICES

General Work Environment

- All worksites clean and orderly.
- Work surfaces kept dry or appropriate means taken to assure the surfaces are slip-resistant.
- All spilled materials or liquids cleaned up immediately.
- Combustible scrap, debris and waste stored safely and removed from the worksite promptly.
- Accumulated combustible dust routinely removed from elevated surfaces, including the overhead structure of buildings.
- Combustible dust cleaned up with a vacuum system to prevent the dust going into suspension.
- Metallic or conductive dust prevented from entering or accumulation on or around electrical enclosures or equipment.
- Covered metal waste cans used for oily and paint-soaked waste.
- All oil and gas fired devices equipped with flame failure controls that will prevent flow of fuel if pilots or main burners are not working.
- Paint spray booths, dip tanks and the like cleaned regularly.
- The minimum number of toilets and washing facilities provided.
- All toilets and washing facilities clean and sanitary.
- All work areas adequately illuminated.
- Pits and floor openings covered or otherwise guarded.

Personal Protective Equipment & Clothing

- Protective goggles or face shields provided and worn where there is any danger of flying particles or corrosive materials.
- Approved safety glasses required to be worn at all times in areas where there is a risk of eye injuries such as punctures, abrasions, contusions or burns.
- Employees who need corrective lenses (glasses or contacts lenses) in working environments with harmful exposures, required to wear only approved safety glasses, protective goggles, or use other medically approved precautionary procedures.
- Protective gloves, aprons, shields, or other means provided against cuts, corrosive liquids and chemicals.
- Hard hats provided and worn where danger of falling objects exists.
- Hard hats inspected periodically for damage to the shell and suspension system.
- Appropriate foot protection required where there is the risk of foot injuries from hot, corrosive, poisonous substances, falling objects, crushing or penetrating actions.
- Approved respirators provided for regular or emergency use where needed.

- All protective equipment maintained in a sanitary condition and ready for use.
- Have eye wash facilities and a quick drench shower within the work area where employees are exposed to injurious corrosive materials.
- Special equipment needed for electrical workers is available.
- When lunches are eaten on the premises, they are eaten in areas where there is no exposure to toxic materials or other health hazards.
- Protection against the effects of occupational noise exposure provided when sound levels exceed those of the OSHA noise standard.
- If any irritant gets into an employee's eyes, call for medical assistance immediately and flush the eye out with clean water.

Walkways

- Aisles and passageways kept clear.
- Aisles and walkways marked as appropriate.
- Wet surfaces covered with non-slip materials.
- Holes in the floor, sidewalk or other walking surface repaired properly, covered or otherwise made safe.
- There is safe clearance for walking in aisles where motorized or mechanical handling equipment is operating.
- Spilled materials cleaned up immediately.
- Materials or equipment stored in such a way that sharp projectiles will not interfere with the walkway.
- Changes of direction or elevations readily identifiable.
- Aisles or walkways that pass near moving or operating machinery, welding operations or similar operations arranged so employees will not be subjected to potential hazards.
- Adequate headroom provided for the entire length of any aisle or walkway.
- Standard guardrails provided wherever aisle or walkway surfaces are elevated more than 30 inches above any adjacent floor or the ground.
- Bridges provided over conveyors and similar hazards.

Floor & Wall Openings

- Floor openings guarded by a cover, guardrail, or equivalent on all sides (except at entrance to stairways or ladders).
- Toeboards installed around the edges of a permanent floor opening (where persons may pass below the opening).
- Skylight screens of such construction and mounting that they will withstand a load of at least 200 pounds.
- The glass in windows, doors, glass walls that are subject to human impact, of sufficient thickness and type for the condition of use.
- Grates or similar type covers over floor openings such as floor drains, of such design that foot traffic or rolling equipment will not be affected by the grate spacing.

- Unused portions of service pits and pits not actually in use either covered or protected by guardrails or equivalent.
- Manhole covers, trench covers and similar covers, plus their supports, designed to carry a truck rear axle load of at least 20,000 pounds when located in roadways and subject to vehicle traffic.
- Floor or wall openings in fire resistive construction provided with doors or covers compatible with the fire rating of the structure and provided with self-closing feature when appropriate.

Stairs & Stairways

- Standard stair rails or handrails on all stairways having four or more risers.
- All stairways at least 22 inches wide.
- Stairs have at least a 6'6" overhead clearance.
- Stairs angle no more than 50 and no less than 30 degrees.
- Stairs of hollow-pan type treads and landings filled to noising level with solid material.
- Step risers on stairs uniform from top to bottom, with no riser spacing greater than 7-1/2 inches.
- Steps on stairs and stairways designed or provided with a surface that renders them slip resistant.
- Stairway handrails located between 30 and 34 inches above the leading edge of stair treads.
- Stairway handrails have a least 1-1/2 inches of clearance between the handrails and the wall or surface they are mounted on.
- Stairway handrails capable of withstanding a load of 200 pounds, applied in any direction.
- Where stairs or stairways exit directly into any area where vehicles may be operated, adequate barriers and warnings provided to prevent employees stepping into the path of traffic.
- Stairway landings have a dimension measured in the direction of travel, at least equal to width of the stairway.
- The vertical distance between stairway landings limited to 12 feet or less.

Elevated Surfaces

- Signs posted, when appropriate, showing the elevated surface load capacity.
- Surfaces elevated more than 30 inches above the floor or ground provided with standard guardrails.
- All elevated surfaces (beneath which people or machinery could be exposed to falling objects) provided with standard 4-inch toeboards.
- A permanent means of access and egress provided to elevated storage and work surfaces.
- Required headroom provided where necessary.

- Material on elevated surfaces piled, stacked or racked in a manner to prevent it from tipping, falling, collapsing, rolling or spreading.
- Dock boards or bridge plates used when transferring materials between docks and trucks or rail cars.

Exiting or Egress

- All exits marked with an exit sign and illuminated by a reliable light source.
- The directions to exits, when not immediately apparent, marked with visible signs.
- Doors, passageways or stairways, that are neither exits nor access to exits and which could be mistaken for exits, appropriately marked "NOT AN EXIT", "TO BASEMENT", "STOREROOM", and the like.
- Exit signs provided with the word "EXIT" in lettering at least 5 inches high and the stroke of the lettering at least 1/2 inch wide.
- Exit doors side-hinged.
- All exits kept free of obstructions.
- At least two means of egress provided from elevated platforms, pits or rooms where the absence of a second exit would increase the risk of injury from hot, poisonous, corrosive, suffocating, flammable, or explosive substances.
- There sufficient exits to permit prompt escape in case of emergency.
- Special precautions taken to protect employees during construction and repair operations.
- The number of exits from each floor of a building, and the number of exits from the building itself, appropriate for the building occupancy load.
- Exit stairways which are required to be separated from other parts of a building enclosed by at least two hour fire-resistive construction in buildings more than four stories in height, and not less than one-hour fire resistive construction elsewhere.
- Ramps are used as part of required exiting from a building, with the ramp slope limited to 1- foot vertical and 12 feet horizontal.
- Exiting will be through frameless glass doors, glass exit doors, storm doors, and such are the doors fully tempered and meet the safety requirements for human impact.

Exit Doors

- Doors that are required to serve as exits designed and constructed so that the way of exit travel is obvious and direct.
- Windows that could be mistaken for exit doors, made inaccessible by means of barriers or railings.
- Exit doors openable from the direction of exit travel without the use of a key or any special knowledge or effort, when the building is occupied.
- A revolving, sliding or overhead door prohibited from serving as a required exit door.

- Where panic hardware is installed on a required exit door, it will allow the door to open by applying a force of 15 pounds or less in the direction of the exit traffic.
- Doors on cold storage rooms provided with an inside release mechanism that will release the latch and open the door even if it's padlocked or otherwise locked on the outside.
- Exit doors open directly onto any street, alley or other area where vehicles may be operated, are adequate barriers and warnings provided to prevent employees stepping into the path of traffic.
- Doors that swing in both directions and are located between rooms where there is frequent traffic, provided with viewing panels in each door.

Portable Ladders

- All ladders maintained in good condition, joints between steps and side rails tight, all hardware and fittings securely attached, and moveable parts operating freely without binding or undue play.
- Non-slip safety feet provided on each ladder.
- Non-slip safety feet provided on each metal or rung ladder.
- Ladder rungs and steps free of grease and oil.
- It is prohibited to place a ladder in front of doors opening toward the ladder except when the door is blocked open, locked or guarded.
- It is prohibited to place ladders on boxes, barrels, or other unstable bases to obtain additional height.
- Employees instructed to face the ladder when ascending or descending.
- Employees prohibited from using ladders that are broken, missing steps, rungs, or cleats, broken side rails or other faulty equipment.
- Employees instructed not to use the top 2 steps of ordinary stepladders as a step.
- Portable rung ladders are used to gain access to elevated platforms, roofs, and the like does the ladder always extend at least 3 feet above the elevated surface.
- It is required that when portable rung or cleat type ladders are used the base is so placed that slipping will not occur, or it is lashed or otherwise held in place.
- Portable metal ladders legibly marked with signs reading "CAUTION" "Do Not Use Around Electrical Equipment" or equivalent wording.
- Employees prohibited from using ladders as guys, braces, skids, gin poles, or for other than their intended purposes.
- Employees instructed to only adjust extension ladders while standing at a base (not while standing on the ladder or from a position above the ladder).
- Metal ladders inspected for damage.
- The rungs of ladders uniformly spaced at 12 inches, center to center.

Hand Tools & Equipment

- All tools and equipment (both, company and employee-owned) used by employees at their workplace in good condition.
- Hand tools such as chisels, punches, which develop mushroomed heads during use, reconditioned or replaced as necessary.
- Broken or fractured handles on hammers, axes and similar equipment replaced promptly.
- Worn or bent wrenches replaced regularly.
- Appropriate handles used on files and similar tools.
- Employees made aware of the hazards caused by faulty or improperly used hand tools.
- Appropriate safety glasses, face shields, and similar equipment used while using hand tools or equipment that might produce flying materials or be subject to breakage.
- Jacks checked periodically to assure they are in good operating condition.
- Tool handles wedged tightly in the head of all tools.
- Tool cutting edges kept sharp so the tool will move smoothly without binding or skipping.
- Tools stored in dry, secure location where they won't be tampered with.
- Eye and face protection used when driving hardened or tempered spuds or nails.

Portable (Power Operated) Tools & Equipment

- Grinders, saws, and similar equipment provided with appropriate safety guards.
- Power tools used with the correct shield, guard or attachment recommended by the manufacturer.
- Portable circular saws equipped with guards above and below the base shoe.
- Circular saw guards checked to assure they are not wedged up, thus leaving the lower portion of the blade unguarded.
- Rotating or moving parts of equipment guarded to prevent physical contact.
- All cord-connected, electrically operated tools and equipment effectively grounded or of the approved double insulated type.
- Effective guards in place over belts, pulleys, chains, and sprockets, on equipment such as concrete mixers, air compressors, and the like.
- Portable fans provided with full guards or screens having openings 1/2 inch or less.
- Hoisting equipment available and used for lifting heavy objects, and are hoist ratings and characteristics appropriate for the task.
- Ground-fault circuit interrupters provided on all temporary electrical 15 and 20 ampere circuits, used during periods of construction.

- Pneumatic and hydraulic hoses on power-operated tools checked regularly for deterioration or damage.

Abrasive Wheel Equipment Grinders

- The work rest used and kept adjusted to within 1/8 inch of the wheel.
- The adjustable tongue on the top side of the grinder used and kept adjusted to within 1/4 inch of the wheel.
- Side guards cover the spindle, nut, and flange and 75 percent of the wheel diameter.
- Bench and pedestal grinders permanently mounted.
- Goggles or face shields always worn when grinding.
- The maximum RPM rating of each abrasive wheel compatible with the RPM rating of the grinder motor.
- Fixed or permanently mounted grinders connected to their electrical supply system with metallic conduit or other permanent wiring method.
- Each grinder has an individual on and off control switch.
- Each electrically operated grinder effectively grounded.
- Before new abrasive wheels are mounted, they are visually inspected and ring tested.
- Dust collectors and powered exhausts provided on grinders used in operations that produce large amounts of dust.
- Splashguards mounted on grinders that use coolant, to prevent the coolant reaching employees.
- Cleanliness maintained around grinder.

Machine Guarding

- There is a training program to instruct employees on safe methods of machine operation.
- There is adequate supervision to ensure that employees are following safe machine operating procedures.
- There is a regular program of safety inspection of machinery and equipment.
- All machinery and equipment kept clean and properly maintained.
- Sufficient clearance provided around and between machines to allow for safe operations, set up and servicing, material handling and waste removal.
- Equipment and machinery securely placed and anchored, when necessary to prevent tipping or other movement that could result in personal injury.
- There is a power shut-off switch within reach of the operator's position at each machine.
- Electric power to each machine be locked out for maintenance, repair, or security.

- The noncurrent-carrying metal parts of electrically operated machines bonded and grounded.
- Foot-operated switches guarded or arranged to prevent accidental actuation by personnel or falling objects.
- Manually operated valves and switches controlling the operation of equipment and machines clearly identified and readily accessible.
- All emergency stop buttons colored red.
- All pulleys and belts that are within 7 feet of the floor or working level properly guarded.
- All moving chains and gears properly guarded.
- Splashguards mounted on machines that use coolant, to prevent the coolant from reaching employees.
- Methods provided to protect the operator and other employees in the machine area from hazards created at the point of operation, ingoing nip points, rotating parts, flying chips, and sparks.
- Machinery guards secure and so arranged that they do not offer a hazard in their use.
- Special hand tools are used for placing and removing material protect the operator's hands.
- Revolving drums, barrels, and containers required to be guarded by an enclosure that is interlocked with the drive mechanism, so that revolution cannot occur unless the guard enclosure is in place, so guarded.
- Arbors and mandrels have firm and secure bearings and are they free from play.
- Provisions made to prevent machines from automatically starting when power is restored after a power failure or shutdown.
- Machines constructed so as to be free from excessive vibration when the largest size tool is mounted and run at full speed.
- Machinery is cleaned with compressed air, is air pressure controlled and personal protective equipment or other safeguards used to protect operators and other workers from eye and body injury.
- Fan blades protected with a guard having openings no larger than 1/2 inch, when operating within 7 feet of the floor.
- Saws used for ripping, equipped with anti-kick back devices and spreaders.
- Radial arm saws so arranged that the cutting head will gently return to the back of the table when released.

Electrical

- Workplace electricians familiar with the OSHA Electrical Safety Regulations.
- Specify compliance with OSHA for all contract electrical work.
- All employees required to report as soon as practicable any obvious hazard to life or property observed in connection with electrical equipment or lines.

- Employees instructed to make preliminary inspections and/or appropriate tests to determine what conditions exist before starting work on electrical equipment or lines.
- When electrical equipment or lines are to be serviced, maintained or adjusted, necessary switches are opened, locked-out and tagged whenever possible.
- Portable electrical tools and equipment grounded or of the double insulated type.
- Electrical appliances such as vacuum cleaners, polishers, vending machines grounded.
- Extension cords being used have a grounding conductor.
- Multiple plug adapters prohibited.
- Ground-fault circuit interrupters installed on each temporary 15 or 20 ampere, 120 volt AC circuit at locations where construction, demolition, modifications, alterations or excavations are being performed.
- All temporary circuits protected by suitable disconnecting switches or plug connectors at the junction with permanent wiring.
- Exposed wiring and cords with frayed or deteriorated insulation is repaired or replaced promptly.
- Flexible cords and cables free of splices or taps.
- Clamps or other securing means provided on flexible cords or cables at plugs, receptacles, tools, and equipment and is the cord jacket securely held in place.
- All cord, cable and raceway connections intact and secure.
- In wet or damp locations, electrical tools and equipment are appropriate for the use or location or otherwise protected.
- The location of electrical power lines and cables (overhead, underground, under floor, other side of walls) is determined before digging, drilling or similar work is begun.
- Metal measuring tapes, ropes, hand lines or similar devices with metallic thread woven into the fabric prohibited where they could come in contact with energized parts of equipment or circuit conductors.
- The use of metal ladders is prohibited in area where the ladder or the person using the ladder could come in contact with energized parts of equipment, fixtures or circuit conductors.
- All disconnecting switches and circuit breakers labeled to indicate their use or equipment served.
- Disconnecting means always opened before fuses are replaced.
- All interior wiring systems include provisions for grounding metal parts of electrical raceways, equipment and enclosures.
- All electrical raceways and enclosures securely fastened in place.
- All energized parts of electrical circuits and equipment guarded against accidental contact by approved cabinets or enclosures.
- Sufficient access and working space is provided and maintained about all electrical equipment to permit ready and safe operations and maintenance.

- All unused openings (including conduit knockouts) in electrical enclosures and fittings closed with appropriate covers, plugs or plates.
- Electrical enclosures such as switches, receptacles, junction boxes, etc., provided with tight-fitting covers or plates.
- Disconnecting switches for electrical motors in excess of two horsepower, capable of opening the circuit when the motor is in a stalled condition, without exploding. (Switches must be horsepower rated equal to or in excess of the motor hp rating).
- Low voltage protection is provided in the control device of motors driving machines or equipment, which could cause probably injury from inadvertent starting.
- Each motor disconnecting switch or circuit breaker is located within sight of the motor control device.
- Each motor located within sight of its controller or the controller disconnecting means is capable of being locked in the open position or is a separate disconnecting means installed in the circuit within sight of the motor.
- The controller for each motor is in excess of two horsepower, rated in horsepower equal to or in excess of the rating of the motor is serves.
- Employees who regularly work on or around energized electrical equipment or lines are instructed in the cardiopulmonary resuscitation (CPR) methods.
- Are employees prohibited from working alone on energized lines or equipment over 600 volts.

Lockout Tagout: Control of Hazardous Energy

- Lockout is the preferred method of isolating machines or equipment from energy sources.
- Lockout Tagout will be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources, and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury such as minor to serious shock, burns (chemical or thermal), cuts, or abrasions.
- All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout.
- The authorized employees are required to perform the lockout in accordance with this procedure. Servicing is to be done only by trained, authorized employees.
- Each new or transferred affected employee and other employees whose work operations are or may be in the area will be instructed in the purpose and use of the lockout or tagout procedures.
- All employees, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance, will not attempt to start, energize, or use the machine or equipment.

- Contractors are required to utilize this company's procedure except when the contractor can demonstrate that their current lockout procedure affords the same level of safety as the Company's procedure.
- All equipment will be locked out or tagged out to protect against accidental or inadvertent operations when such operations could cause injury to personnel.
- Do not attempt to operate any switch, valve, or other energy-isolating device where it is locked or tagged out.
- In the event a piece of equipment is to be isolated for a period of time exceeding one normal shift and the isolating means is not capable of being locked out, a reasonable effort will be made to affix a device to the isolating means to make capable of being locked out.
- All authorized employee engaging in lockout tagout activities will follow the written procedure and the guidelines set forth in the Company's Lockout Tagout Program.

Welding, Cutting & Brazing

- Only authorized and trained personnel permitted to use welding, cutting or brazing equipment.
- All operators have a copy of the appropriate operating instructions and are they directed to follow them.
- Compressed gas cylinders regularly examined for obvious signs of defects, deep rusting, or leakage.
- Care used in handling and storage of cylinders, safety valves, relief valves, and the like, to prevent damage.
- Precautions taken to prevent the mixture of air or oxygen with flammable gases, except at a burner or in a standard torch.
- Only approved apparatus (a torch, regulators, pressure-reducing valves, acetylene generators, manifolds) used.
- Cylinders kept away from sources of heat.
- It is prohibited to use cylinders as rollers or supports.
- Empty cylinders appropriately marked their valves closed and valve-protection caps on.
- Signs reading: DANGER NO-SMOKING, MATCHES, OR OPEN LIGHTS, or the equivalent posted.
- Cylinders, cylinder valves, couplings, regulators, hoses, and apparatus keep free of oily or greasy substances.
- Care taken not to drop or strike cylinders.
- Unless secured on special trucks, regulators are removed and valve-protection caps put in place before moving cylinders.
- Cylinders without fixed hand wheels have keys, handles, or non-adjustable wrenches on stem valves when in service.
- Liquefied gases stored and shipped valve-end up with valve covers in place.

- Employees instructed to never crack a fuel-gas cylinder valve near sources of ignition.
- Before a regulator is removed, the valve is closed and gas released form the regulator.
- Red used to identify the acetylene (and other fuel-gas) hose, green for oxygen hose, and black for inert gas and air hose.
- Pressure-reducing regulators used only for the gas and pressures for which they are intended.
- Open circuit (No Load) voltage of arc welding and cutting machines as low as possible and not in excess of the recommended limits.
- Under wet conditions, automatic controls for reducing no-load voltage are used.
- Grounding of the machine frame and safety ground connections of portable machines checked periodically.
- Electrodes removed from the holders when not in use.
- It is required that electric power to the welder be shut off when no one is in attendance.
- Suitable fire extinguishing equipment available for immediate use.
- The welder forbidden to coil or loop welding electrode cable around his body.
- Wet machines thoroughly dried and tested before being used.
- Work and electrode lead cables frequently inspected for wear and damage, and replaced when needed.
- Means for connecting cables' lengths have adequate insulation.
- The object to be welded cannot be moved and fire hazards cannot be removed, are shields used to confine heat, sparks, and slag.
- Firewatchers assigned when welding or cutting is performed, in locations where a serious fire might develop.
- Combustible floors kept wet, covered by damp sand, or protected by fire-resistant shields.
- When floors are wet down, personnel are protected from possible electrical shock.
- When welding is done on metal walls, precautions are taken to protect combustibles on the other side.
- Before hot work is begun, are used drums, barrels, tanks, and other containers so thoroughly cleaned that no substances remain that could explode, ignite, or produce toxic vapors.
- It is required that eye protection helmets, hand shields and goggles meet appropriate standards.
- Employees exposed to the hazards created by welding, cutting, or bracing operations protected with personal protective equipment and clothing.
- A check made for adequate ventilation in and where welding or cutting is preformed.
- When working in confined places environmental monitoring tests are taken and means provided for quick removal of welders in case of an emergency.

Arc Welders

- Keep your head out of the fumes.
- Use enough ventilation or exhaust to remove fumes and gases from the work area. Mechanical equipment should exhaust at least 2000 cfm of air for each welder, except where individual exhaust hoods, booths, or air-line respirators are used.
- Natural ventilation may be used under certain conditions. For welding or cutting mild steel, natural ventilation is usually sufficient if a room has at least 10,000 cubic feet per welder, with a ceiling height of at least 16 feet. Cross-ventilation should not be blocked, and welding should not be done in a confined space.
- Don't get too close to the arc ("Avoid the plume"). Use corrective lenses to help you maintain the proper distance if necessary.
- Read and understand the Material Safety Data Sheets (MSDS) for the product.
- Read and obey warning labels on all containers of welding materials.
- Use a smoke extractor-type welding gun for semiautomatic welding processes.
- Protect your body from welding spatter and arc flash with clothing made from durable, flame-resistant material, such as woolen fabrics, and gear that includes flame-proof apron and gloves, leather leggings, and high boots.
- Avoid clothing made of synthetic materials, which can melt when exposed to extreme heat or sparks, or cotton unless it is specially treated for fire protection.
- Keep your clothes free of grease and oil, which may ignite.
- Protect others from spatter, flash, and glare with non-flammable protective screens or curtains.
- Be sure to wear safety glasses with side shields when in a welding area.
- Be sure you are insulated from the work piece and ground, as well as other live electrical parts.
- Don't lean on the work piece.
- Use plywood, rubber mats or other dry insulation to stand on, and wear dry, hole-free gloves.
- Stay dry, and do not weld when you are wet. Never dip the electrode in water to cool it.
- Check equipment to be sure it is properly grounded, in good repair, and installed according to prevailing codes.
- Be sure equipment is turned off when not in use.
- Electric current flowing through a conductor causes Electric and Magnetic Fields (EMF), which can interfere with pacemakers and may affect health in other ways. Consult your physician before arc welding if you have a pacemaker.

- To avoid excessive exposure to EMF, keep the electrode and work cables together, never place your body between the two cables or coil the electrode lead around your body, and do not work directly next to the welding power source.

Compressors & Compressed Air

- Compressors equipped with pressure relief valves, and pressure gauges.
- Compressor air intakes installed and equipped to ensure that only clean uncontaminated air enters the compressor.
- Air filters installed on the compressor intake.
- Compressors operated and lubricated in accordance with the manufacturer's recommendations.
- Safety devices on compressed air systems checked frequently.
- Before any repair work is done on the pressure system of a compressor, the pressure is bled off and the system locked-out.
- Signs posted to warn of the automatic starting feature of the compressors.
- The belt drive system is totally enclosed to provide protection for the front, back, top, and sides.
- It is strictly prohibited to direct compressed air towards a person.
- Employees prohibited from using highly compressed air for cleaning purposes.
- If compressed air is used for cleaning off clothing, the pressure is reduced to less than 10 psi.
- When using compressed air for cleaning, employees use personal protective equipment.
- Safety chains or other suitable locking devices used at couplings of high pressure hose lines where a connection failure would create a hazard.
- Before compressed air is used to empty containers of liquid, the safe working pressure of the container is checked.
- When compressed air is used with abrasive blast cleaning equipment, the operating valve is a type that must be held open manually.
- When compressed air is used to inflate auto tires, a clip-on chuck and an inline regulator preset to 40 psi is required.
- It is prohibited to use compressed air to clean up or move combustible dust if such action could cause the dust to be suspended in the air and cause a fire or explosion hazard.
- Only air guns with a dead end pressure of less than 30 p.s.i. will be used in this plant. These guns are marked to indicate this limitation.
- Air and/or hydraulic hoses cannot be repaired with screw (hose) clamps.
- Air compressors will be drained to remove water.

Compressed Air Receivers

- Every receiver is equipped with a pressure gauge and with one or more automatic, spring-loaded safety valves.

- The total relieving capacity of the safety valve capable of preventing pressure in the receiver from exceeding the maximum allowable working pressure of the receiver by more than 10 percent.
- Every air receiver provided with a drainpipe and valve at the lowest point for the removal of accumulated oil and water.
- Compressed air receivers periodically drained of moisture and oil.
- All safety valves tested frequently and at regular intervals to determine whether they are in good operating condition.
- There is a current operating permit issued by the Division of Occupational Safety and Health.
- The inlet of air receivers and piping systems is kept free of accumulated oil and carbonaceous materials.
- All air compressor relief valves will be tested monthly and a record of that test will be maintained in the Maintenance Supervisor's office.

Compressed Gas & Cylinders

- Cylinders with a water weight capacity over 30 pounds equipped with means for connecting a valve protector device, or with a collar or recess to protect the valve.
- Cylinders legibly marked to clearly identify the gas contained.
- Compressed gas cylinders stored in areas which are protected from external heat sources such as flame impingement, intense radiant heat, electric arcs, or high temperature lines.
- Cylinders located or stored in areas where they will not be damaged by passing or falling objects, or subject to tampering by unauthorized persons.
- Cylinders stored or transported in a manner to prevent them creating a hazard by tipping, falling or rolling.
- Cylinders containing liquefied fuel gas, stored or transported in a position so that the safety relief device is always in direct contact with the vapor space in the cylinder.
- Valve protectors always placed on cylinders when the cylinders are not in use or connected for use.
- All valves closed off before a cylinder is moved, when the cylinder is empty, and at the completion of each job.
- Low pressure fuel-gas cylinders checked periodically for corrosion, general distortion, cracks, or any other defect that might indicate a weakness or render it unfit for service.
- The periodic check of low pressure fuel-gas cylinders include a close inspection of the cylinders' bottom.

Material Handling

- There is safe clearance for equipment through aisles and doorways.

- Aisleways designated, permanently marked, and kept clear to allow unhindered passage.
- Motorized vehicles and mechanized equipment inspected daily or prior to use.
- Vehicles shut off and brakes set prior to loading or unloading.
- Containers or combustibles or flammables, when stacked while being moved, always separated by dunnage sufficient to provide stability.
- Dock boards (bridge plates) used when loading or unloading operations are taking place between vehicles and docks.
- Trucks and trailers secured from movement during loading and unloading operations.
- Dock plates and loading ramps constructed and maintained with sufficient strength to support imposed loading.
- Hand trucks maintained in safe operating condition.
- Chutes equipped with sideboards of sufficient height to prevent the materials being handled from falling off.
- Chutes and gravity roller sections firmly placed or secured to prevent displacement.
- At the delivery end of rollers or chutes, provisions are made to brake the movement of the handled materials.
- Pallets usually inspected before being loaded or moved.
- Hooks with safety latches or other arrangements used when hoisting materials so that slings or load attachments won't accidentally slip off the hoist hooks.
- Securing chains, ropes, chokers or slings are adequate for the job to be performed.
- When hoisting material or equipment, provisions are made to assure no one will be passing under the suspended loads.
- Material Safety Data Sheets available to employees handling hazardous substances.

Hoist & Auxiliary Equipment

- Each overhead electric hoist is equipped with a limit device to stop the hook travel at its highest and lowest point of safe travel.
- Each hoist automatically will stop and hold any load up to 125 percent of its rated load, if its actuating force is removed.
- The rated load of each hoist is legibly marked and visible to the operator.
- Stops provided at the safe limits of travel for trolley hoist.
- The controls of hoists plainly marked to indicate the direction of travel or motion.
- Each cage-controlled hoist is equipped with an effective warning device.
- Close-fitting guards or other suitable devices installed on hoist to assure hoist ropes will be maintained in the sheave groves.

- All hoist chains or ropes of sufficient length to handle the full range of movement for the application while still maintaining two full wraps on the drum at all times.
- Nip points or contact points between hoist ropes and sheaves which are permanently located within 7 feet of the floor, ground or working platform, guarded.
- It is prohibited to use chains or rope slings that are kinked or twisted.
- It is prohibited to use the hoist rope or chain wrapped around the load as a substitute, for a sling.
- The operator is instructed to avoid carrying loads over people.
- Only employees who have been trained in the proper use of hoists allowed to operate them.

Cranes

- The cranes visually inspected for defective components prior to the beginning of any work shift.
- All electrically operated cranes effectively grounded.
- A crane preventive maintenance program is established.
- The load chart is clearly visible to the operator.
- Operating controls clearly identified.
- A fire extinguisher is provided at the operator's station.
- The rated capacity is visibly marked on each crane.
- An audible warning device is mounted on each crane.
- Sufficient illumination is provided for the operator to perform the work safely.
- Cranes of such design, that the boom could fall over backward, equipped with boomstops.
- Each crane has a certificate indicating that required testing and examinations have been performed.
- Crane inspection and maintenance records maintained and available for inspection.

Industrial Trucks - Forklifts

- Only trained personnel allowed to operate industrial trucks.
- Substantial overhead protective equipment is provided on high lift rider equipment.
- The required lift truck operating rules posted and enforced.
- Directional lighting is provided on each industrial truck that operates in an area with less than 2 foot candles per square foot of general lighting.
- Each industrial truck has a warning horn, whistle, gong or other device which can be clearly heard above the normal noise in the areas where operated.
- The brakes on each industrial truck capable of bringing the vehicle to a complete and safe stop when fully loaded.

- The industrial truck's parking brake will effectively prevent the vehicle from moving when unattended.
- Industrial trucks operating in areas where flammable gases or vapors, or combustible dust or ignitable fibers may be present in the atmosphere, are approved for such locations.
- Motorized hand and hand/rider trucks so designed that the brakes are applied, and power to the drive motor shuts off when the operator releases his/her grip on the device that controls the travel.
- Industrial trucks with internal combustion engine operated in buildings or enclosed areas, carefully checked to ensure such operations do not cause harmful concentration of dangerous gases or fumes.

Entering Confined Spaces

- Confined spaces thoroughly emptied of any corrosive or hazardous substances, such as acids or caustics, before entry.
- Before entry, all lines to a confined space, containing inert, toxic, flammable, or corrosive materials are valved off and blanked or disconnected and separated.
- It is required that all impellers, agitators, or other moving equipment inside confined spaces be locked-out if they present a hazard.
- Either natural or mechanical ventilation is provided prior to confined space entry.
- Before entry, appropriate atmospheric tests are performed to check for oxygen deficiency, toxic substance and explosive concentrations in the confined space before entry.
- Adequate illumination is provided for the work to be performed in the confined space.
- The atmosphere inside the confined space is frequently tested or continuously monitor during conduct of work.
- There is an assigned safety standby employee outside of the confined space, whose sole responsibility is to watch the work in progress, sound an alarm if necessary, and render assistance.
- The standby employee or other employees are prohibited from entering the confined space without lifelines and respiratory equipment if there is any questions as to the cause of an emergency.
- In addition to the standby employee, there is at least one other trained rescuer in the vicinity.
- All rescuers appropriately trained and using approved, recently inspected equipment.
- All rescue equipment allows for lifting employees vertically from a top opening.
- Are there trained personnel in First Aid and CPR immediately available.
- There is an effective communication system in place whenever respiratory equipment is used and the employee in the confined space is out of sight of the standby person.

- Approved respiratory equipment is required if the atmosphere inside the confined space cannot be made acceptable.
- All portable electrical equipment is used inside confined spaces either grounded and insulated, or equipped with ground fault protection.
- Before gas welding or burning is started in a confined space, hoses are checked for leaks, compressed gas bottles forbidden inside of the confined space, torches lighted only outside of the confined area and the confined area tested for an explosive atmosphere each time before a lighted torch is to be taken into the confined space.
- If employees will be using oxygen-consuming equipment such as salamanders, torches, furnaces, in a confined space, sufficient air is provided to assure combustion without reducing the oxygen concentration of the atmosphere below 19.5 percent by volume.
- Whenever combustion-type equipment is used in confined space, provisions are made to ensure the exhaust gases are vented outside of the enclosure.
- Each confined space is checked for decaying vegetation or animal matter, which may produce methane.
- The confined space is checked for possible industrial waste, which could contain toxic properties.
- If the confined space is below the ground and near areas where motor vehicles will be operating, it is possible for vehicle exhaust or carbon monoxide to enter the space.

Environmental Controls

- All work areas properly illuminated.
- Employees instructed in proper first aid and other emergency procedures.
- Hazardous substances identified which may cause harm by inhalation, ingestion, skin absorption or contact.
- Employees aware of the hazards involved with the various chemicals they may be exposed to in their work environment, such as ammonia, chlorine, epoxies, and caustics.
- Employee exposure to chemicals in the workplace is kept within acceptable levels.
- Whenever possible a less harmful method or product be used.
- The work area's ventilation system is appropriate for the work being performed.
- Spray painting operations done in spray rooms or booths equipped with an appropriate exhaust system.
- Employee exposure to welding fumes is controlled by ventilation, use of respirators, exposure time, or other means.
- Welders and other workers nearby provided with flash shields during welding operations.

- If forklifts and other vehicles are used in buildings or other enclosed areas, the carbon monoxide levels are kept below maximum acceptable concentration.
- There has been a determination that noise levels in the facilities are within acceptable levels.
- Steps being taken to use engineering controls to reduce excessive noise levels.
- Proper precautions being taken when handling asbestos and other fibrous materials.
- Caution labels and signs used to warn of asbestos.
- Wet methods used, when practicable, to prevent the emission of airborne asbestos fibers, silica dust and similar hazardous materials.
- Vacuuming with appropriate equipment is used whenever possible rather than blowing or sweeping dust.
- Grinders, saws, and other machines that produce respirable dusts vented to an industrial collector or central exhaust system.
- All local exhaust ventilation systems designed and operating properly such as airflow and volume necessary for the application. Are the ducts free of obstructions or the belts slipping.
- Personal protective equipment is provided, used and maintained wherever required.
- There written standard operating procedures for the selection and use of respirators where needed.
- Restrooms and washrooms kept clean and sanitary.
- All water provided for drinking, washing, and cooking is potable.
- All outlets for water not suitable for drinking clearly identified.
- Employees' physical capacities assessed before being assigned to jobs requiring heavy work.
- Employees instructed in the proper manner of lifting heavy objects.
- Where heat is a problem, all fixed work areas have been provided with spot cooling or air conditioning.
- Employees screened before assignment to areas of high heat to determine if their health condition might make them more susceptible to having an adverse reaction.
- Employees working on streets and roadways where they are exposed to the hazards of traffic, required to wear bright colored (traffic orange) warning vest.
- Exhaust stacks and air intakes located that contaminated air will not be re-circulated within a building or other enclosed area.
- Equipment producing ultra-violet radiation is properly shielded.

Control of Harmful Substances by Ventilation

- The volume and velocity of air in each exhaust system is sufficient to gather the dusts, fumes, mists, vapors or gases to be controlled, and to convey them to a suitable point of disposal.

- Exhaust inlets, ducts and plenums designed, constructed, and supported to prevent collapse or failure of any part of the system.
- Clean-out ports or doors provided at intervals not to exceed 12 feet in all horizontal runs of exhaust ducts.
- Where two or more different type of operations are being controlled through the same exhaust system, the combination of substances being controlled will not constitute a fire, explosion or chemical reaction hazard in the duct.
- Adequate makeup air is provided to areas where exhaust systems are operating.
- The intake for makeup air is located so that only clean, fresh air, which is free of contaminates, will enter the work environment.
- Where two or more ventilation systems are serving a work area, their operation is such that one will not offset the functions of the other.

Flammable & Combustible Materials

- Combustible scrap, debris and waste materials (i.e. oily rags) stored in covered metal receptacles and removed from the worksite promptly.
- Proper storage practiced to minimize the risk of fire including spontaneous combustion.
- Approved containers and tanks used for the storage and handling of flammable and combustible liquids.
- Are all connections on drums and combustible liquid piping, vapor and liquid tight.
- Are all flammable liquids kept in closed containers when not in use (e.g. parts cleaning tanks, pans).
- Bulk drums of flammable liquids grounded and bonded to containers during dispensing.
- Storage rooms for flammable and combustible liquids have explosion-proof lights.
- Storage rooms for flammable and combustible liquids have mechanical or gravity ventilation.
- Liquefied petroleum gas stored, handled, and used in accordance with safe practices and standards.
- Liquefied petroleum storage tanks guarded to prevent damage from vehicles.
- All solvent wastes and flammable liquids kept in fire-resistant covered containers until they are removed from the worksite.
- Vacuuming used whenever possible rather than blowing or sweeping combustible dust.
- Fire separators placed between containers of combustibles or flammables, when stacked one upon another, to assure their support and stability.
- Fuel gas cylinders and oxygen cylinders separated by distance, fire resistant barriers or other means while in storage.

- Fire extinguishers selected and provided for the types of materials in areas where they are to be used.
    - Class A: Ordinary combustible material fires.
    - Class B: Flammable liquid, gas or grease fires.
    - Class C: Energized-electrical equipment fires.
- If a Halon 1301 fire extinguisher is used, employees can evacuate within the specified time for that extinguisher.
- Appropriate fire extinguishers mounted within 75 feet of outside areas containing flammable liquids, and within 10 feet of any inside storage area for such materials.
- The transfer/withdrawal of flammable or combustible liquids is performed by trained personnel.
- Fire extinguishers mounted so that employees do not have to travel more than 75 feet for a class "A" fire or 50 feet for a class "B" fire.
- Employees trained in the use of fire extinguishers.
- Are extinguishers free from obstructions or blockage.
- All extinguishers serviced, maintained and tagged at intervals not to exceed one year.
- All extinguishers fully charged and in their designated places.
- A record maintained of required monthly checks of extinguishers.
- Where sprinkler systems are permanently installed, the nozzle heads are directed or arranged so that water will not be sprayed into operating electrical switchboards and equipment.
- "NO SMOKING" signs posted where appropriate in areas where flammable or combustible materials are used or stored.
- "NO SMOKING" signs posted on liquefied petroleum gas tanks.
- "NO SMOKING" rules enforced in areas involving storage and use of flammable materials.
- Safety cans used for dispensing flammable or combustible liquids at a point of use.
- All spills of flammable or combustible liquids cleaned up promptly.
- Storage tanks adequately vented to prevent the development of excessive vacuum or pressure as a result of filling, emptying, or atmosphere temperature changes.
- Storage tanks equipped with emergency venting that will relieve excessive internal pressure caused by fire exposure.
- Spare portable or butane tanks, which are sued by industrial trucks stored in accord with regulations.

Fire Protection

- Have a fire prevention plan.
- Plan describes the type of fire protection equipment and/or systems.
- Established practices and procedures to control potential fire hazards and ignition sources.

- Employees aware of the fire hazards of the material and processes to which they are exposed.
- Local fire department well acquainted with your facilities, location and specific hazards.
- Fire alarm system is tested at least annually.
- Fire alarm system is certified as required.
- Interior standpipes and valves are inspected regularly.
- Outside private fire hydrants are flushed at least once a year and on a routine preventive maintenance schedule.
- Fire doors and shutters in good operating condition.
- Fire doors and shutters unobstructed and protected against obstructions, including their counterweights.
- Fire door and shutter fusible links in place.
- Automatic sprinkler system water control valves, air and water pressures checked weekly/periodically as required.
- Maintenance of automatic sprinkler system is assigned to responsible persons or to a sprinkler contractor.
- Sprinkler heads protected by metal guards, when exposed to physical damage.
- Proper clearance is maintained below sprinkler heads.
- Portable fire extinguishers provided in adequate number and type.
- Fire extinguishers mounted in readily accessible locations.
- Are fire extinguishers recharged regularly and noted on the inspection tag.
- Employees periodically instructed in the use of extinguishers and fire protection procedures.

Hazardous Chemical Exposures

- Employees trained in the safe handling practices of hazardous chemicals such as acids, caustics, and the like.
- Employees aware of the potential hazards involving various chemicals stored or used in the workplace--such as acids, bases, caustics, epoxies, and phenols.
- Employee exposure to chemicals is kept within acceptable levels.
- Eye wash fountains and safety showers provided in areas where corrosive chemicals are handled.
- All containers, such as vats and storage tanks labeled as to their contents--e.g. "CAUSTICS".
- All employees required to use personal protective clothing and equipment when handling chemicals (i.e. gloves, eye protection, and respirators).
- Flammable or toxic chemicals kept in closed containers when not in use.
- Chemical piping systems clearly marked as to their content.
- Where corrosive liquids are frequently handled in open containers or drawn from storage vessels or pipelines, adequate means is readily available for neutralizing or disposing of spills or overflows properly and safely.

- Standard operating procedures have been established and are they being followed when cleaning up chemical spills.
- Where needed for emergency use, respirators are stored in a convenient, clean and sanitary location.
- Respirators intended for emergency use adequate for the various uses for which they may be needed.
- Employees prohibited from eating in areas where hazardous chemicals are present.
- Is personal protective equipment provided, used and maintained whenever necessary.
- There are written standard operating procedures for the selection and use of respirators where needed.
- Respirator protection program requires employees to be instructed on the correct usage and limitations of the respirators.
- The respirators NIOSH approved for this particular application.
- They regularly inspected and cleaned sanitized and maintained.
- Hazardous substances are used in your processes require a medical or biological monitoring system in operation.
- Familiar with the Threshold Limit Values or Permissible Exposure Limits of airborne contaminants and physical agents used in your workplace.
- Control procedures have been instituted for hazardous materials, where appropriate, such as respirators, ventilation systems, handling practices, and the like.
- Whenever possible, hazardous substances are handled in properly designed and exhausted booths or similar locations.
- Use general dilution or local exhaust ventilation systems to control dusts, vapors, gases, fumes, smoke, solvents or mists which may be generated in your workplace.
- Ventilation equipment is provided for removal of contaminants from such operations as production grinding, buffing, spray painting, and/or vapor decreasing, and is it operating properly.
- If internal combustion engines are used, carbon monoxide is kept within acceptable levels.
- Vacuuming used, rather than blowing or sweeping dusts whenever possible for clean up.
- Materials, which give off toxic asphyxiant, suffocating or anesthetic fumes, are stored in remote or isolated locations when not in use.

Hazardous Substances Communication

- There is a list of hazardous substances used in your workplace.
- There is a written hazard communication program dealing with Material Safety Data Sheets (MSDS) labeling, and employee training.
- The RSO is responsible for MSDSs, container labeling, employee training.

- Each container for a hazardous substance (i.e. vats, bottles, storage tanks,) is labeled with product identity and a hazard warning (communication of the specific health hazards and physical hazards).
- There is a Material Safety Data Sheet readily available for each hazardous substance used.
- There is an employee training program for hazardous substances. This program include:
    - An explanation of what an MSDS is and how to use and obtain one.
    - MSDS contents for each hazardous substance or class of substances.
    - Explanation of "Right to Know".
    - Identification of where employees can see the employer's written hazard communication program and where hazardous substances are present in their work area.
    - The physical and health hazards of substances in the work area, how to detect their presence, and specific protective measures to be used.
    - Details of the hazard communication program, including how to use the labeling system and MSDSs.
    - How employees will be informed of hazards of non-routine tasks, and hazards of unlabeled pipes.

Transporting Employees & Materials

- Employees who operate vehicles on public thoroughfares have valid operator's licenses.
- When seven or more employees are regularly transported in a van, bus or truck, the operator's license is appropriate for the class of vehicle being driven.
- Each van, bus or truck used regularly to transport employees, is equipped with an adequate number of seats.
- When employees are transported by truck, provisions are provided to prevent their falling from the vehicle.
- Vehicles used to transport employees, equipped with lamps, brakes, horns, mirrors, windshields and turn signals in good repair.
- Transport vehicles provided with handrails, steps, stirrups or similar devices, so placed and arranged that employees can safely mount or dismount.
- Employee transport vehicles equipped at all times with at least two reflective type flares.
- A full charged fire extinguisher, in good condition, with at least 4 B:C rating maintained is in each employee transport vehicle.
- When cutting tools with sharp edges are carried in passenger compartments of employee transport vehicles, they are placed in closed boxes or containers which are secured in place.

- Employees prohibited from riding on top of any load, which can shift, topple, or otherwise become unstable.

Emergency Action Plan

- Have an emergency action plan.
- The emergency action plan complies with requirements of OSHA regulations.
- Emergency escape procedures and routes have been developed and communicated to all employers.
- Employees, who remain to operate critical plant operations before they evacuate, know the proper procedures.
- The employee alarm system that provides a warning for emergency action is recognizable and perceptible above ambient conditions.
- Alarm systems properly maintained and tested regularly.
- The emergency action plan is reviewed and revised periodically.
- Employees now their responsibilities:
    - For reporting emergencies.
    - During an emergency.
    - For conducting rescue and medical duties.

Infection Control

- A training and information program is provided for employees exposed to or potentially exposed to blood and/or body fluids?
- Infection control procedures have been instituted where appropriate, such as ventilation, universal precautions, workplace practices, personal protective equipment?
- Employees are aware of specific workplace practices to follow when appropriate? (Hand washing, handling sharp instruments, handling of laundry, disposal of contaminated materials, reusable equipment.)
- Personal protective equipment is provided to employees, and in all appropriate locations?
- The necessary equipment (i.e. mouth-pieces, resuscitation bags, other ventilation devices) is provided for administering mouth-to-mouth resuscitation on potentially infected patients?
- Facilities/equipment are to comply with workplace practices available, such as hand-washing sinks, biohazard tags and labels, needle containers, detergents/disinfectants to clean up spills?
- All equipment and environmental and working surfaces are cleaned and disinfected after contact with blood or potentially infectious materials?
- Infectious waste is placed in closable, leak proof containers, bags or puncture-resistant holders with proper labels?
- Medical surveillance including HBV evaluation, antibody testing and vaccination has been made available to potentially exposed employees?

- Employees are trained on universal precautions, personal protective equipment and needlestick exposure/management.
- Employee are trained on workplace practices which should include blood drawing, room cleaning, laundry handling, clean-up of blood spills?
- Employees potentially exposed to bloodborne pathogens are offered Hepatitis B vaccinations at no cost to the employee.

Ergonomics

- The work can be performed without eyestrain or glare to the employees.
- Tasks will not require prolonged raising of the arms.
- The neck and shoulders will not have to be stooped to view the task.
- There are no pressure points on any parts of the body (wrists, forearms, back of thighs).
- The work can be done using the larger muscles of the body.
- The work can be done without twisting or overly bending the lower back.
- Sufficient rest breaks, in addition to the regular rest breaks, to relieve stress from repetitive-motion tasks.
- Tools, instruments and machinery shaped, positioned and handled so that tasks can be performed comfortably.
- All pieces of furniture adjusted, positioned and arranged to minimize strain on all parts of the body.

Back & Lifting Safety

Lifting things and moving them from one place to another is a very simple operation. However, if this operation is done incorrectly, it may cause many injuries. You can wrench your back or pull a muscle, or crush or pinch your hands or feet.

- Learn how to lift and prevent injuries.
- Use the right kind of personal protective gear.
- Hand protection and safety shoes are a must for most lifting jobs.
- Some jobs might call for hard hats and goggles.
- If it is too big or too heavy for you to handle alone, get help.
- Check the material for nails, splinters, rough stripping that might injure your hands.

<u>Lifting Procedures</u>

1. Face the load.
2. Put one foot alongside the object, and one foot behind.
3. Bend at the knees. Let your legs do the work.
4. Keep back straight and the load as close as possible.
5. Get a good, firm grip with the palms of your hands while lifting by straightening your legs.
6. Avoid twisting as you turn with a load. Shift your feet instead.

7. Don't try to lift something above waist level in one motion. Set the load on a table or bench, and then change your grip for lifting higher.
8. To put the object down, just follow the lifting procedure, but in reverse

Housekeeping

Office areas are to be kept neat and orderly. The following general rules apply to prevent injuries and maintain a professional appearance.

- All aisles, emergency exits, fire extinguishers, etc., will be kept clear (a minimum of three feet of either side) of material storage (temporary and permanent) at all times.
- Storage areas will be maintained orderly at all times. When supplies are received, the supplies will be stored properly.
- Spills will be cleaned-up immediately and wastes disposed of properly.
- All waste receptacles will be lined with a plastic trash bag to avoid direct contact while handling. Custodial Employees will use rubber gloves and compaction bar when handling wastes.
- Keep file and desk drawers closed when not attended to avoid injuries. Open only one drawer at a time to prevent tipping of file cabinets.
- At the end of the business day, turn off all office equipment (area heaters, lamps, coffee-maker, PCs, etc.) and lights to save energy and prevent fires. All space heaters must be un-plugged at the end of the day to assure they have been turned-off.

Work areas will be kept neat and orderly, during operations and as follows:

- All aisles, emergency exits, fire extinguishers, eye wash stations, etc., will be kept clear (a minimum of three feet in front of and to either side) of product storage, material storage, fork trucks and pallet jacks at all times.
- Spills will be cleaned up immediately.
- All process leaks will be reported to supervision and maintenance for immediate repair and clean-up.
- Utility Employees will be responsible to keep aisles and work floors clear of excessive debris and waste materials during shift operation, between breaks and at shift change when necessary or directed by supervision; however, all Employees are responsible to communicate slippery floors to supervision for immediate clean-up.
- All refuse and waste materials will be placed in the recognized waste containers for disposal.

Restrooms and break areas are provided as a convenience for all Employees. The following rules will apply:

- Employees are expected to clean-up after themselves as a common courtesy to fellow Employees.
- Flammable materials (fire works, explosives, gasoline, etc.) may not be stored in break areas or brought on company property.
- Personal food item will not be stored in break areas overnight.

- All waste receptacles will be lined with a plastic trash bag to avoid direct contact while handling and Custodial Employees will use rubber gloves and compaction bar when handling wastes.
- All refuse and waste materials will be placed in the recognized waste containers for disposal.

Maintenance Areas, the following rules apply:

- All aisles, emergency exits, fire extinguishers, etc., will be kept clear (a minimum of three feet of either side) of material storage (temporary and permanent) at all times.
- Storage Areas will be maintained orderly at all times:
- Pipe stock stored horizontally on racks and sorted by size
- Metal stock stored horizontally on racks and sorted by size
- Sheet metal stock stored vertically in racks and sorted by type
- All fittings, etc., stored in bins on shelves and sorted by type and use
- All flammables stored in OSHA-approved Fire Cabinets and self-closing cans where necessary
- Spills will be cleaned-up immediately by the person responsible and wastes disposed properly.
- All refuse and waste materials will be placed in the recognized waste containers for disposal.

The grounds surrounding our main facility and worksites are an extension of the work place. Grounds that are kept neat and orderly show pride by the Company for Employees, customers and neighbors to enjoy. The following general rules will apply:

- Keep the parts of buildings that are visible to public roads cleaned by washing them at regular intervals.
- Keep the other parts of buildings cleaned at regular intervals.
- Keep all doors and loading docks completely free of debris, shrubs, or other obstructions.
- Maintain visibility through all windows by washing at regular intervals.
- Keep doors and windows properly maintained in good working order.
- Repair any damage to doors and windows at regular intervals.
- All trash will be discarded only in the waste containers provided.
- Park only in the designated assigned area.
- Trinity will be responsible for grounds keeping (mowing, trimming, etc.) as needed. Maintenance will also establish procedures for ice/snow removal, when necessary, prior to operations each day.
- Provide any stairs or platforms adjacent to or leading into the building(s) with adequate rails, adequate treads to climb, and an area clean and free of materials.
- Keep grounds neat and orderly, free of refuse and unnecessary materials.
- Store materials outdoors only in designated areas of the grounds.

- Provide designated walkways through grounds, preferably paved and kept clear of snow, ice, materials, or any other physical hazards.
- Provide a lighting system that is adequate to allow employees to navigate around the grounds as necessary at dusk and after dark.
- Maintain a neat landscaping appearance--trim lawn, trees and shrubs in such a way as to minimize any possible safety hazards.
- Trim grass short enough to prevent trip hazards to employees.
- Prevent trees and shrubs from obstructing doors and windows.

Material Storage

Proper storage procedures are required for dry, raw materials, flammables and compressed gases storage to prevent fires, keep exits and aisles clear and avoid injuries and illnesses. General rules for material storage are as follows:

- Materials may not be stored any closer than 18 inches to walls or sprinkler heads. A minimum of 3 feet side clearance will be maintained around doorways and emergency exits. Passageways and aisle will be properly marked and a minimum of six feet in width. Materials, fork lifts, pallet jacks, etc., may not be stored in aisles or passageways.
- Aisles and passageways will be kept clear of debris. All spills of materials will be immediately cleaned-up by the person responsible.
- All platforms and racks will have maximum load capacity displayed. The weight of stored material will not exceed the rated load capacity.
- All flammables will be stored in OSHA-approved flammable storage cabinets or stored outside (at least 50 feet from any structure)
- Fuels, solvents and other flammables (not stored in original shipping containers) will be stored in OSHA-approved self-closing containers with flame arresters. Flammables may not be stored in open containers (open parts baths, etc.).
- Flammable storage areas will be kept dry and well ventilated. No storage of combustible materials, open flames or exposed electrical components is permitted in the flammable storage area.
- Flammable or combustible materials may not be stored in electrical rooms. Electrical rooms must be kept clean and dry at all times.
- Inspect bottle for defects & proper marking/labels
- Ensure stamped date on bottle has not expired
- Inspect valve assembly and adapter thread area
- Ensure MSDS is on file or with shipment
- Follow MSDS requirements for storage
- Cylinder cap securely in place when not in use.
- Marked with contents and if empty/full.
- Stored up-right and secured to a stationary structure in a shaded and well ventilated area.
- Cylinders not stored within 50 feet of exposed electrical components or combustible materials.

- Cylinders are protected from accidental rupture.
- Chemically reactive gases not stored within 50 feet of each other.
- Must be secured to a cart or cylinder trolley
- Cap securely fastened
- Inspect valve adapter threads.
- Inspect all fasteners, hoses & regulators prior to hooking up to cylinder.
- Use only for approved purposes.
- Use in up-right position.
- Fasten cylinder to structure or cart.
- Regulators must be of same rated pressure as cylinder
- Keep cylinder valve shut when not in use; don't depend on regulators

Company Vehicles

Some company employees are provided with vehicles for use in their jobs. The following rules apply:

- The company requires all drivers of company vehicles to have current, valid licenses.
- Company policy prohibits anyone without a valid driver's license from driving a company vehicle.
- An employee who becomes uninsurable by the company's insurance company will be subject to termination.
- Company vehicles are to be used only for job-related activities.
- People who are not employed by the company or who are not assisting in work-related activities should not be transported in company vehicles as passengers because it presents a potential exposure to liability.
- All traffic laws and regulations are to be obeyed.
- Every effort should be made to keep mileage driven to a minimum by combining trips whenever possible. Special circumstances that may require deviation from this policy must first be cleared by your supervisor.
- It is important that when you do drive a company vehicle you obey all traffic regulations, including the 55 miles per hour speed limit. On company roads, a much slower speed should be maintained at all times.

Tire Inflation

- Where tires are mounted and/or inflated on drop center wheels a safe practice procedure is posted and enforced.
- Where tires are mounted and/or inflated on wheels with split rims and/or retainer rings a safe practice procedure is posted and enforced.
- Each tire inflation hose has a clip-on chuck with at least 24 inches of hose between the chuck and an in-line hand valve and gauge.
- The tire inflation control valve is automatically shut off the airflow when the valve is released.

- A tire restraining device such as a cage, rack or other effective means is used while inflating tires mounted on split rims, or rims using retainer rings.
- Employees strictly forbidden from taking a position directly over or in front of a tire while it's being inflated.

Fueling

- It is prohibited to fuel an internal combustion engine with a flammable liquid while the engine is running.
- Fueling operations done in such a manner that likelihood of spillage will be minimal.
- When spillage occurs during fueling operations, the spilled fuel is cleaned up completely, evaporated, or other measures taken to control vapors before restarting the engine.
- Fuel tank caps replaced and secured before starting the engine.
- In fueling operations there is always metal contact between the container and fuel tank.
- Fueling hoses of a type designed to handle the specific type of fuel.
- It is prohibited to handle or transfer gasoline in open containers.
- Open lights, open flames, or sparking or arcing equipment prohibited near fueling or transfer of fuel operations.
- Smoking prohibited in the vicinity of fueling operations.
- Fueling operations prohibited in building or other enclosed areas that are not specifically ventilated for this purpose.
- Where fueling or transfer of fuel is done through a gravity flow system, the nozzles are of the self-closing type.

Working in the Cold

- Wearing the proper clothes may be the most significant precaution to reducing cold stress. Wearing appropriate clothes for cold weather involves using three layers of clothing. Also use layering to protect the head, hands, and feet.
- Drink plenty of fluids; preferably warm, sweet beverages. Thirst is suppressed in a cold environment and dehydration may occur when fluid intake is reduced.
- Increase caloric intake when working in cold environments. Workers in cold environments who wear heavy, protective clothing expend more heat and so require 10-15 percent more calories.
- A work warm-up schedule should be used to provide periodic times for warm-up breaks. Additional breaks should be provided as the wind velocity increases and/or the temperature drops.
- Avoid taking certain drugs such as alcohol, nicotine, caffeine, and medication that inhibits the body's response to cold or impairs judgment.

- Avoid the cold if you are becoming exhausted or immobilized. These conditions can accelerate the effects of cold weather.
- Shield work areas from drafty or windy conditions. Provide a heated shelter for workers with prolonged exposure to equivalent wind-chill temperatures of 20˚ F or less.
- Select the warmest hours of the day when braving the cold. Minimize activities that reduce circulation.
- Educate employees on symptoms of cold-related stresses: heavy shivering, uncomfortable coldness, severe fatigue, drowsiness, and/or euphoria.
- Use the buddy system. Always work in pairs when working in extreme weather conditions so partners can monitor one another and obtain help quickly in an emergency.

Working in the Heat

- Cooling pads inserted into hardhats or around the neck can help keep the head and neck cooler. Vented hardhats are also available to prevent heat buildup by allowing air to pass through. Neckbands soaked in cold water and worn during the day may also keep workers more comfortable, and wearing cooling vests might also help.
- Protective eyewear offering sufficient ventilation or special lens coatings can help reduce lens fogging in hot conditions. Sweatbands can be worn to absorb perspiration on the forehead before it drips into the eyes.
- Gloves used for hand protection can be cumbersome and also increase workers' heat complaints. Breathable products, employing nylon mesh or containing perforations, are available to reduce heat buildup. Select a glove that has a liner to absorb sweat.
- Maintaining proper hydration is essential. In some settings, workers can produce two or more gallons of sweat in a day. The National Institute for Occupational Safety and Health (NIOSH), recommends drinking five to seven ounces of fluids (excluding coffee, tea, soda, or alcohol) every 15-20 minutes to replenish the body.
- Physically demanding tasks should be limited to the coolest part of the shift and workers should take frequent breaks in cool areas.