CODE OF SAFE PRACTICES

GENERAL SAFETY RULES AND POLICIES

1) All persons shall follow these safe practices and policies, render every possible aid to safe operations, and report all unsafe conditions or practices to the foreman or superintendent.
2) Foremen shall insist on employees observing and obeying every rule, regulation, and order as is necessary to the safe conduct of the work, and shall take such action as is necessary to obtain observance.
3) All employees shall be given frequent accident prevention instructions. Instructions shall be given at least every 10 working days.
4) Anyone known to be under the influence of drugs or intoxicating substances which impair the employee's ability to safely perform the assigned duties shall not be allowed on the job while in that condition.
5) Horseplay, scuffling, and other acts which tend to have an adverse influence on the safety or well-being of the employees shall be prohibited.
6) Work shall be well planned and supervised to prevent injuries in the handling of materials and in working together with equipment.
7) No one shall knowingly be permitted or required to work while the employee's ability or alertness is so impaired by fatigue, illness, or other causes that it might unnecessarily expose the employee or others to injury.
8) Employees shall not enter manholes, underground vaults, chambers tanks, silos, or other similar places that receive little ventilation, unless it has been determined that it is safe to enter.
9) Employees shall be instructed to ensure that all guards and other protective devices are in proper places and adjusted, and shall report deficiencies promptly to the foreman or superintendent.
10) All excavations shall be visually inspected before backfilling, to ensure that it is safe to backfill.
11) Excavating equipment shall not be operated near tops of cuts, banks, and cliffs if employees are working below.

ACCIDENT, ILLNESS AND INJURY REPORTING AND INVESTIGATION

1) Accidents and injuries are to be reported to the project supervisor, either in person or by telephone, as soon as possible and, without exception, prior to the end of the workday.
2) Accident, injury and work-related illness investigation will be performed according to the procedures described in the company Injury and Illness Prevention Program. Findings of the investigation and resolution of outstanding issues will be documented.
3) The following key points will be identified in every investigation:
    - Who and What was directly involved in the accident.
    - Who and What was indirectly involved in the accident.
    - Where and When the accident occurred.
    - The Cause of the accident, if known.

- Steps/Procedures to take to prevent re-occurrence, if known.

4) All management and supervisory personnel will be trained in accident, illness and injury investigation techniques. Each investigation will be performed as soon as possible after the incident. The purpose of the investigation is to determine contributing factors, conditions and/or practices, so that proper action can be taken to prevent recurrence. Minor incidents or close calls should also be investigated because they serve as warnings of potential hazards that could result in serious future injuries or illnesses.

BARRIERS AND WARNING SIGNS

1) Barriers are to placed around safety hazards. Barriers must be sturdily constructed and obvious to site workers and the general public.
2) Warning signs must be placed on or near safety hazards. Design, placement and wording of warning signs must be in accordance with the general guidelines presented in 8 CCR 6003. "Danger" signs must be placed wherever an imminent hazard is present. "Caution" signs must be placed wherever the potential for an unsafe condition exists. Safety instruction signs must be placed wherever additional safety instructions regarding a hazard are appropriate. Wording of safety instruction signs must be positive not negative ("do," not "don't").

CLOTHING

1) Loose sleeves, tails, ties, frills, lapels, cuffs or other loose clothing must not be worn around machinery in which it may become entangled.
2) Clothing saturated with flammable liquids, corrosive substances, irritants or other potentially harmful chemicals must be promptly removed and not worn again until cleaned.
3) Where there is risk of injury from hair entanglement in moving parts of machinery or through contact with combustible, corrosive or toxic chemicals, hair must be confined to eliminate the hazard.
4) Do not wear metal jewelry (watches, rings, necklaces, bracelets, long ear rings) or metal-framed glasses when working near electrical circuits.
5) Cotton or wool clothing is preferable to synthetic clothing. Synthetic clothing may melt and burn or fuse to the skin when exposed to electrical current or intense radiant heat.
6) Personal protective equipment must be reasonably comfortable and not unduly encumber employees' movements.
7) Employees engaged in activities near moving traffic must wear brightly-colored clothing, such as neon orange coveralls or vests.

COMPRESSED GAS CYLINDERS

1) Transport cylinders only on carts designed for that purpose and with the safety caps tightly screwed-on. Lecture bottles and self-contained breathing apparatus cylinders may be transported individually with both hands.
2) Never allow cylinders to remain freestanding. Cylinders must be secured by chain, rack, bracket, or other means so as to prevent falling or rolling.
3) Never tamper with safety devices, such as safety rupture disks, on valves or cylinders.
4) Always open valves slowly with the valve outlet pointing away from you.

5) Valves should be closed when cylinders are not in actual use. The valve protection cap should be securely in place whenever the cylinder is not connected.
6) Full and empty cylinders are not to be stored together because an empty cylinder mistakenly attached to a pressurized system can dangerously "suck back." Clearly identify and isolate full and empty cylinders.
7) Cylinders should not be subjected to temperatures in excess of 125 degrees Fahrenheit. They should not be stored in direct sunlight or near sources of heat.
8) Do not swap fittings on regulators. Do not fashion adapters. Every gas regulator is designed for a specific use. Only use the correct regulator for the cylinder.
9) Cylinders of oxygen should not be stored indoors within 20 feet of cylinders containing flammable gases (such as hydrogen) or highly combustible materials. If stored more closely, cylinders must be separated by a fire-resistant partition with a minimum of a one-half hour rating.
10) Cylinders must be legibly marked to clearly identify the gas contained.

CONCRETE

1) Safety glasses with side shields are worn when splashing of cement/water may occur.
2) Protective equipment (gloves, clothing, safety glasses and/or respirators) are worn to prevent over-exposure to form oils, curing compounds, bond breakers, retarders, sealers, and other hazardous chemicals.
3) Dry cutting of concrete is not done; only wet cutting is performed.

4) Sweeping of dry cement dust is not done.
5) Grounding and bonding procedures are used when dispensing flammable curing agents, bond breakers and retardants.
6) Workers wear safety glasses or goggles when working with form oils, curing agents, bond breakers, and retardants.
7) Workers using epoxy sealants and bonding agents have been trained in the hazards of their use and take care to keep them off their skin.

CONFINED SPACE ENTRY

The following general guidelines must be fulfilled during any construction site confined space entry. All such work must be performed in compliance with the requirements of 8 CCR 5158 and other applicable regulations. Employees will be trained in these general requirements and other, site-specific requirements, prior to initiating confined space entry.

1) Lines which may convey hazardous materials into the space, with the exception of public utility gas lines, must be disconnected, blinded, or blocked off.
2) The space must be emptied, flushed, or otherwise purged of hazardous materials to the extent feasible.
3) The air must be tested with air contaminant/oxygen deficiency instrument. Interconnected spaces must be individually tested. Testing must be repeated with sufficient frequency to prevent the unknown development of an air contaminant or oxygen deficiency to a dangerous extent. Records of testing must be kept.
4) If a dangerous air contamination and/or oxygen deficiency is present, work may proceed only after complying with the more stringent confined space entry requirements established in 8 CCR 5159.
5) No source of ignition may be introduced into the confined space until testing verifies that flammable and/or explosive substances are not present at unsafe concentrations.
6) Whenever oxygen-consuming equipment such as salamanders, plumbers' torches or furnaces, are to be used, measures must be taken to ensure adequate combustion air and exhaust gas venting.
7) Steps must be taken to ensure continuous ready entry into and egress from the confined space, to the extent feasible.
8) Additional precautionary steps, including deactivation, must be considered when working in confined spaces equipped with oxygen-displacing fire suppression systems.

ELECTRICAL SAFETY

1) Electricians have been instructed in the Cal/OSHA Electrical Safety Orders and in lockout/blockout/tagout procedures.
2) All employees are required to report as soon as practical any obvious hazard to life or property observed in connection with electrical equipment or lines.
3) Employees are required to make preliminary inspections and/or appropriate tests to determine what conditions exist before starting work on electrical equipment or lines.
4) When electrical equipment or lines are to be serviced, maintained or adjusted, the necessary switches must be opened, locked-out and tagged whenever possible (see "Lockout/Blockout/Tagout").
5) Portable electrical tools and equipment must be grounded or of the double insulated type.

6) Extension cords have a grounding conductor.
7) Multiple plug adapters are prohibited, as are any other adapters which interrupt the continuity of the equipment grounding connection.
8) Ground-fault circuit interrupters are installed on each temporary 15 or 20 ampere, 120 volt AC circuit at locations where construction, demolition, modifications, alterations or excavations are being performed.
9) All temporary circuits are protected by suitable disconnecting switches or plug connectors at the junction with permanent wiring.
10) Exposed wiring and cords with frayed or deteriorated insulation are repaired or replaced promptly.
11) Flexible cords and cables must be free of splices or taps.
12) Clamps or other securing means must be provided on flexible cords or cables at plugs, receptacles, tools, equipment, etc.
13) The location of electrical power lines and cables (overhead, underground, underfloor, other side of walls, etc.) must be determined before digging, drilling or similar work is begun.
14) Metal measuring tapes, ropes, handlines or similar devices with metallic thread woven into the fabric are prohibited where they could come in contact with energized parts of equipment or circuit conductors.
15) The use of metal ladders is prohibited in areas where the ladder or the person using the ladder could come in contact with energized part of equipment, fixtures or circuit conductors.
16) All disconnecting switches and circuit breakers must be labeled to indicate their use or equipment served.
17) Disconnecting means must always be opened before fuses are replaced.
18) All interior wiring systems must include provisions for grounding metal parts of electrical raceways, equipment and enclosures.
19) All electrical raceways and enclosures must be securely fastened in place.
20) All energized parts of electrical circuits and equipment must be guarded against accidental contact by approved cabinets or enclosures.
21) All unused openings (including conduit knockouts) in electrical enclosures and fittings must be closed with appropriate covers, plugs or plates.
22) Electrical enclosures such as switches, receptacles, junction boxes, etc., must be provided with tight-fitting covers or plates.
23) Disconnecting switches for electrical motors in excess of two horsepower, must be 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).
24) Motor disconnecting switches or circuit breakers must be located within sight of the motor control device.
25) Each motor must be located within sight of its controller, or the controller disconnecting means, capable of being locked in the open position or is a separate disconnecting means installed in the circuit within sight of the motor.
26) Employees who regularly work on or around energized electrical equipment or lines are instructed in the cardiopulmonary resuscitation (CPR) methods.
27) Employees are prohibited from working alone on energized lines or equipment over 600 volts.
28) Employees who regularly work around energized electrical equipment or lines have been instructed in the hazards associated with electricity, including shock, high current arcs, and ignition of combustible atmospheres.

29) Load rated switches, circuit breakers, or other devices specifically designed as disconnecting means shall be used for the opening, reversing, or closing of circuits under load conditions. Cable connectors not of the load-break type, fuses, terminal lugs, and cable splice connections may not be used for such purposes, except in an emergency.
30) After a circuit is deenergized by a circuit protective device, the circuit may not be manually reenergized until it has been determined that the equipment and circuit can safely be energized. The repetitive manual reclosing of circuit breakers or reenergizing circuits through replaced fuses is prohibited.
31) Overcurrent protection of circuits and conductors may not be modified, even on a temporary basis, beyond that Cal/OSHA regulations pertaining to installation safety requirements for overcurrent protection.
32) Test instruments and equipment and all associated test leads, cables, power cords, probes, and connectors must be visually inspected for external defects and damage before the equipment is used. If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item must be removed from service and no employee may use it until necessary repairs and tests to render the equipment have been made.

ELECTRICAL SHOCK

1) Using caution, make certain that the victim is no longer in contact with the source of electricity. If still in contact, determine the safest way to quickly remove the victim from the source or the source from the victim.

   Note: items 2-7 below assume a CPR/First Aid-trained person is present. 8 CCR 1512 requires that personnel trained and immediately available to provide first aid must be provided on construction sites.

2) Send someone to dial "911" while you assist the victim. If possible, do not leave victim unattended.
3) Establish an open airway by gently tilting the victim's head back.
4) Check and maintain breathing. If victim is not breathing, perform mouth-to-mouth artificial respiration.
5) Check and maintain circulation. If victim's heart has stopped, perform CPR until emergency medical personnel arrive and take over from you.
6) If the victim is conscious and breathing, keep them warm and reassure them that help is on the way. If the victim vomits, turn them on their side to prevent airway blockage. Cover any burned skin with sterile gauze.

EMERGENCIES

1) Employees will be trained in the content of the company Emergency Action Plan prior to starting work.
2) Employees are required to familiarize themselves with the Emergency Action Plan of jobsites prior to beginning work, including the location of emergency telephone numbers for police, fire and medical assistance.
3) In the case of an injured employee, notify other workers in the area that you are in need of assistance. Protect the injured employee from further injury.

4) It is company policy to ensure the availability of at least one first aid-trained individual for each jobsite. However, it is company policy that employees are not trained to provide emergency medical assistance in medical emergencies involving serious injury and/or loss of blood. Should employees choose to respond to such emergencies, it is on a "Good Samaritan" basis. In case of serious injury, dial "911" or otherwise seek the immediate assistance of trained medical personnel.
5) Inform supervisory personnel of the nature of the emergency as soon as is possible.
6) Before you dial "911" be sure than you can readily identify the location where the emergency has occurred.
7) For emergencies involving exposure to hazardous substances, consult the safety data sheet (SDS) for guidance. Have the SDS readily available for medical personnel.
8) At least one first aid kit will be available at each jobsite. The content of the kit will be in compliance with the requirements of 8 CCR 1512.

EXCAVATIONS

1) Underground construction work, including excavation and trenching, will be performed in compliance with procedures stipulated in 8 CCR 1540 (Excavations) and 1541 (Shoring, Sloping and Benching Systems).
2) Prior to opening an excavation, the company will determine, to the extent possible, whether underground installations such as sewer, water, fuel, electric lines, telephone lines, etc. will be encountered.
3) Regional Notification Centers must be notified of proposed work at least 2 working days prior to the start of excavation work, with the exception of emergency repair work.
4) A stairway, ladder, ramp or other safe means of egress must be present in trench excavations that are 4 or more feet in depth. Such egress must be located with 25 feet of lateral travel of every employee in the trench.
5) Employees are not permitted to work underneath loads handled by lifting or digging equipment.
6) Where potentially harmful atmospheric contaminants may be present in the excavation, work will performed in adherence with the company written Confined Space Program.
7) Employees within an excavation must be protected from cave-in by an adequate protective system, such as shoring or shielding, unless the excavation is less than 5 feet in depth and a qualified "competent person" determines that there is no likelihood of cave-in.
8) Excavation support systems must be selected, designed, implemented and maintained in accordance with 8 CCR 1541.1.

FALL PROTECTION

1) Floor and wall openings, unfinished balconies and other situations in which falls may occur must be protected with standard railings and toe boards where there is more than a four foot drop.
2) A standard railing consists of a top rail, intermediate rail, toe boards and post.
3) The vertical height of standard railing must be between 42 and 45 inches as measured from the upper surface of the top rail to the floor. The post and top railings should be constructed of at least 2-inch by 4-inch stock, with posts spaced no greater than 8 feet. The intermediate rail must be constructed of at least 1-inch by 6-inch stock and be positioned halfway between the floor and the guard rail.

4) Standard toe boards must be at least 4-inches in vertical height from the top of the board to the level of the platform/floor. They must be securely fastened in place and not have more than 1/4-inch clearance above floor level.
5) The anchoring of the post and framing of members for railings must be of such construction that the completed structure must be capable of withstanding a load of at least 200 pounds supplied in any direction at any point on the top rail with a minimum of deflection.
6) Where raw materials and/or personnel need to access through a particular regularly protected area, such an arrangement must be established and maintained. Establishment of permanently open areas and railing to accept personnel and materials is not permissible.
7) All holes are guarded.
8) All trenches are guarded.
9) Warning signs are posted where appropriate.
10) Paths to and from all platforms are unobstructed. Ladders, walkways and stairs are safe and not blocked.
11) Anyone working 6 feet high or higher, if guardrails are impracticable, must be tied off and wearing an approved safety belt and lanyard. Work from trusses, beams, purlins tie off over 15 feet. Work other than connecting (bolting up, etc) on structural steel, tie off over 15 feet. Work connecting on structural steel, tie off over 30 feet.
12) The qualified person for scaffold erection/dismantling must be identified and responsible for the work.

FIRE PREVENTION (also see "Flammable and Combustible Materials")

1) Portable fire extinguishers must be provided where work involves flammable materials or the potential for ignition of combustible materials.
2) Fire extinguishers must be recharged at least annually and inspected at least monthly. Inspections are to be noted on the inspection tag attached to the extinguisher.
3) Employees who may be called upon to use fire extinguishers must be trained in their use.

FIRST AID

1) First aid kits are accessible to employees. The contents of first aid kits is, at a minimum, consistent with the requirements of 8 CCR 1512 for the number of employees on site. The contents of first aid kits will be checked at least quarterly for the adequacy of supplies.
2) Employees providing first aid assistance possess current Red Cross First Aid certificates or equivalent.
3) Refer to the sections of this handbook entitled "Electrical Shock" and "Emergencies" for more information on treatment of injuries.

FITNESS FOR WORK

1) Employees are expected to report for work without physical or mental impairment which may endanger themselves or their fellow workers. Employees are expected to maintain themselves in such condition throughout the work shift.
2) If an employee is observed to be acting in an impaired or otherwise unsafe manner, the circumstances should be reported to a supervisor as soon as is possible. Should the site supervisor be acting in such a manner, then the circumstances should be reported to company management at the earliest opportunity.

FLAMMABLE AND COMBUSTIBLE MATERIALS

1) Combustible scrap, debris and waste materials (oily rags, etc.) must be stored in covered metal receptacles and removed from the worksite promptly.
2) OSHA-approved containers and tanks must be used for the storage and handling of flammable and combustible liquids.
3) Flammable liquids must be kept in closed containers when not in use (e.g. parts cleaning tanks, pans, etc.).
4) Bulk drums of flammable liquids must be grounded and bonded to containers during dispensing.
5) Storage rooms for flammable and combustible liquids must have explosion-proof lights and mechanical or gravity ventilation.
6) Fire extinguishers must be 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.*
7) Fire extinguishers must be mounted within 75 feet of outside areas containing flammable liquids, and within 10 feet of any inside storage area for such materials.
8) Where sprinkler systems are permanently installed, nozzle heads must be directed or arranged so that water will not be sprayed into operating electrical switch boards and equipment.
9) "NO SMOKING" signs must be clearly posted in areas where flammable or combustible liquids are used or stored.
10) Safety cans must be used for dispensing flammable or combustible liquids.
11) Spills of flammable or combustible liquids must be cleaned up promptly. Refer to the MSDS for guidance.
12) Gasoline shall not be used for cleaning purposes.
13) No burning, welding, or other source of ignition shall be applied to any enclosed tank or vessel, even if there are some openings until it has first been determined that no possibility of explosion exists, and authority for the work is obtained from the foreman or superintendent.

HAND TOOLS AND EQUIPMENT

1) All tools and equipment (both, company and employee-owned) used by employees at their workplace must be maintained in good condition. Tools should be inspected prior to each use. Damaged tools must be repaired or replaced prior to use.
2) Employees are made aware of the hazards caused by faulty or improperly used hand tools.
3) Appropriate safety glasses, face shields, etc., are used while using hand tools or equipment which might produce flying materials or be subject to breakage.
4) Tool handles must be wedged tightly in the head of all tools.

HAZARDOUS CHEMICAL EXPOSURE

1) Exposure to hazardous chemicals can occur (a) because of chemicals you or others are working with or (b) because of the area in which the work is occurring. Examples of (a) are

use of solvents or stripping of lead cable. Examples of (b) are trenching in contaminated ground and running conduit above a suspended ceiling in a building with asbestos fireproofing.

2) **Solvents:** Harmful exposure to solvents is most likely to occur by skin and eye contact and by inhalation of vapors. Skin and eye contact may produce irritation; inhalation may cause respiratory irritation and drowsiness, dizziness, giddiness, and headache. Workers should avoid contact exposure by wearing chemical-resistant gloves and safety glasses. Avoid inhalation exposure by good work practices, working in well-ventilated areas, and, if necessary, by wearing the appropriate respirator (as per the company Respiratory Protection Program).
3) **Lead:** In general, lead exposure by inhalation poses the greatest risk because lead fumes and fine lead dust are readily absorbed into the blood system, while, if ingested, just 10% of the lead becomes absorbed. Most lead poisonings are the result of prolonged exposure, not single events. When working with lead-jacketed cable or other lead-containing materials, care should be taken not to fragment the material and release airborne dust. Workers should also wash their hands and face upon completion of the work and prior to eating, drinking or smoking.
4) **Asbestos:** When brittle (friable) asbestos becomes crushed, fibers become airborne, and it is possible to inhale the fibers. Inhalation of asbestos fibers results in an increased likelihood of developing asbestos-related disease such as asbestosis, lung cancer, or mesothelioma. Care should be taken not to damage asbestos-containing building and construction materials, such as fireproofing, pipe/boiler insulation and wire insulation.
5) It is company policy that employees receive appropriate training in safe handling practices of hazardous chemicals (see company Hazard Communication Program).
6) Eye wash fountains and safety showers must be provided in areas where corrosive chemicals are handled.
7) All containers must be labeled as to their contents.
8) Employees are required to use appropriate personal protective clothing and equipment when handling chemicals (gloves, eye protection, respirators, etc..
9) Employees are prohibited from eating, drinking and smoking in areas where hazardous chemicals are present.
10) Control procedures have been instituted to minimize exposure to hazardous materials, where appropriate, such as personal protective equipment, ventilation systems, work practices, etc..

HAZARD COMMUNICATION

1) An up-to-date hazardous substances inventory is maintained.
2) The company has a written hazard communication program dealing with Safety Data Sheets (SDS) labeling, and employee training.
3) Each container for a hazardous substance labeled with product identity and a hazard warning (communication of the specific health hazards and physical hazards).
4) A SDS is readily available for each hazardous substance used.
5) There is an employee training program for hazardous substances. The program includes:
    - An explanation of what an SDS is and how to use and obtain one.
    - SDS contents for each hazardous substance or class of substances.
    - Explanation of "Right to Know."

- Identification of where an employee can see the employers written hazard communication program and where hazardous substances are present in their work areas.
- The physical and health hazards of substances in the work area, and specific protective measures to be used.
- Details of the hazard communication program, including how to use the labeling system and SDS's.

HOISTS

1) Overhead electric hoists must be equipped with a limit device to stop the hook travel at its highest and lowest point of safe travel.
2) Each hoist must automatically stop and hold any load up to 125 percent of its rated load, if its actuating force is removed.
3) The rated load of each hoist must be legibly marked and visible to the operator.
4) Stops must be provided at the safe limits of travel for trolley hoists.
5) The controls of hoists must be plainly marked to indicate the direction of travel or motion.
6) Close-fitting guards or other suitable devices must be installed on hoists to assure hoist ropes will be maintained in the sheave grooves.
7) All hoist chains or ropes must be 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.
8) Nip points or contact points between hoist ropes and sheaves which are permanently located within seven feet of the floor, ground or working platform, must be guarded.
9) It is prohibited to use chains or rope slings that are kinked or twisted.
10) It is prohibited to use the hoist rope or chain wrapped around the load as a substitute, for a sling.
11) It is prohibited to carry loads over people.
12) Tag lines must be attached to all hoisted loads.
13) Ropes and handlines used near exposed energized parts must be nonconductive.

HOUSEKEEPING

1) Spilled liquids or other materials must be cleaned up immediately.
2) Work areas are to be kept clean and orderly. Tools, wires, supplies, materials and loose objects are not to be left in disorder during the work day, at the conclusion of the work day, or at the end of the project.
3) Clean paths, without obstruction, of entry to and egress from the work area are to be maintained at all times.
4) Sharp protruding nails and wire must be removed or bent.
5) Employees may not perform housekeeping duties at close distances to energized electrical contact hazards, unless adequate safeguards are in place.
6) Electrically conductive cleaning materials (e.g., steel wool, metalized cloth, silicon carbide, and conductive liquid solutions) may not be used in proximity to energized parts unless procedures are utilized which prohibit electrical contact.

INSPECTIONS

1) Job site inspections will be performed in accordance with the company Injury and Illness Prevention Program.
2) At a minimum, project superintendents will conduct safety and health inspections on a weekly basis. Foremen will conduct daily inspections. Inspections will also be conducted whenever new substances, processes, procedures, or equipment are introduced to the workplace that represent a new occupational safety and health hazard. Lastly, an inspection will be performed whenever the company is made aware of a new or previously unrecognized hazard.
3) All inspections must be documented.

LADDERS

1) Ladders must be maintained in good condition, with the joint between steps and side rails tight, all hardware and fittings securely attached and moveable parts operating freely without binding or undue play.
2) Non-slip safety feet must be provided on each ladder.
3) Ladder rungs and steps must be maintained free of grease and oil.
4) 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.
5) It is prohibited to place ladders on boxes, barrels, or other unstable bases to obtain additional height.
6) Employees must face the ladder when ascending or descending.
7) Employees are prohibited from using ladders that are broken, missing steps, rungs, or cleats, broken side rails or other faulty equipment.
8) Employees must be instructed not to use the top step of ordinary stepladders as a step.
9) When portable rung ladders are used to gain access to elevated platforms, roofs, etc., the ladder must always extend at least 3 feet above the elevated surface.
10) When portable rung or cleat type ladders are used the base must be so placed that slipping will not occur, or be lashed or otherwise held in place.
11) Portable metal ladders must be legibly marked with signage reading "CAUTION - Do Not Use Around Electrical Equipment" or equivalent wording.
12) Employees are prohibited from using ladders as guys, braces, skids, gin poles, or for other than their intended purposes.
13) Employees must only adjust extension ladders while standing at a base (not while standing on the ladder or from a position above the ladder).
14) Ladders must be placed on firm, dry ground.
15) The tops of ladders must be secured to prevent their being dislodged.
16) The bottom (foot) of a ladder must be placed 1 foot out from the wall for every 4 feet it is in height.
17) Portable ladders must have nonconductive siderails if they are used where a worker or the ladder could contact exposed energized parts.

LIFTING

1) Equipment (forklifts, handtrucks, hoists, etc.) should be used instead of manual labor, wherever feasible.
2) Jobsite inspection should identify the following and train workers on proper handling procedures:

- materials which are lifting hazards (bulky objects, or objects where sudden weight shifts may occurs, such as bags)
- tasks which require lifting, twisting or bending while holding heavy materials
- whether or not workers are wearing belts and, if they are wearing them properly (tightly around the waist)

3) In general, back support belts have not been found to be effective in reducing back injuries and are not recommended.
4) Areas where workers will be carrying materials must be kept free of trip hazards and other obstacles that may result in injury.
5) Where feasible, areas where workers lift heavy objects or put them down must be organized to reduce risk of injury. For example, if workers are lifting bags of cement from a pallet, raise the pallet up to a height where workers won't have to squat down before lifting.
6) Workers should be instructed to have a firm hold on materials prior to lifting.
7) Workers should be instructed not to attempt to lift an object in order to determine whether it is too heavy to lift.
8) In general, the basic rules of lifting are:
   - keep your back as straight as possible
   - avoid twisting of the torso during lifting
   - use leg and arm muscles instead of back muscles

LIVE LINE TOOLS

1) Workers must be trained in the handling, care and maintenance of live line tools prior to assignment to live line work. Such training must be documented.
2) Employees are responsible for maintaining live line tools in the manner instructed.
3) Live line tools must be of an approved type for the work involved and must be used in accordance with the manufacturer's instructions and company policy.
4) No alterations or repairs may be made to live line tools unless such repairs are made by an authorized individual and with parts meeting the manufacturer's specifications.
5) Tools which show any signs of damage, leakage or creepage must not be used for live line work. Such tools are to be tagged and either disposed of or repaired by an authorized individual.

LOCKOUT/TAGOUT/BLOCKOUT

1) Where machinery, equipment and prime movers are cleaned, repaired, serviced or adjusted, the company has developed a written Energy Control Program. The Program identifies the rules and techniques used to control hazardous energy and the means by which the company enforces worker compliance. Only properly trained employees may perform lockout/tagout/blockout-related work. Specific content of the Program includes:

   - a statement characterizing the intended use of the procedure
   - the procedural steps for shutting down, isolating, blocking and securing machinery, equipment and prime movers in order to control hazardous energy
   - the procedural steps for the placement, removal and transfer of lockout devices and tagout devices, including specific responsibility for such actions
   - the requirement for testing of machinery and equipment to verify the effectiveness of lockout or tagout devices, or other energy control devices

2) All machinery or equipment capable of movement, required to be de-energized or disengaged and blocked or locked-out during cleaning, servicing, adjusting or setting up operations, whenever required.
3) Means must be provided to assure the control circuit can also be disconnected and locked-out.
4) The locking-out of control circuits in lieu of locking-out main power disconnects is prohibited.
5) All equipment control valve handles must include a means of locking-out.
6) Stored energy (mechanical, hydraulic, air, etc.) must be released or blocked before equipment is locked-out for repairs.
7) Appropriate employees must be provided with individually keyed personal safety locks.
8) Employees are required to keep personal control of their key(s) while they have safety locks in use.
9) Only the employee exposed to the hazard can place or remove the safety lock.
10) Employees must check the safety of the lock-out by attempting a start up after making sure no one is exposed.
11) Employees must be instructed to always push the control circuit stop button prior to re-energizing the main power switch.
12) A means must be provided to identify any or all employees who are working on locked-out equipment by their locks or accompanying tags.
13) A sufficient number of accident preventive signs or tags and safety padlocks must be readily available in case of any reasonably foreseeable repair emergency.
14) When machine operations, configuration or size requires the operator to leave his or her control station to install tools or perform other operations, and that part of the machine could move if accidentally activated, the element is required to be separately locked or blocked out.
15) In the event that equipment or lines cannot be shut down, locked-out and tagged, a safe job procedure must be established and rigidly followed.
16) The jobsite will be inspected at least annually by supervisory personnel to determine that the requirements of the energy control procedure are being followed.
17) Employees must be trained at least annually on the content of the Program and the employee's responsibilities to fulfill the requirements of the Program.
18) Written inspection and training records must be maintained. The inspection records must include the machine or equipment, the date of the inspection, the employees included, and the person(s) performing the inspection.

NOISE

1) Jobsites must be evaluated for the presence of noise levels which exceed limits established in 8 CCR 5096.
2) Approved hearing protective equipment (noise attenuating devices such as ear plugs and ear muffs) must be made available to every employee working in noisy areas (e.g., above 85 dBA as an 8-hour time-weighted average).

PERSONAL PROTECTIVE EQUIPMENT

1) Protective goggles or face shields must be provided and worn where there is any danger of flying particles or corrosive materials. Protective eye and face equipment must meet the requirements of ANSI Z87.1-1968.
2) Approved safety glasses are required to be worn at all times in areas where there is a risk of eye injuries such as punctures, abrasions, contusions or burns (e.g., where there is danger of electrical arcs or flashes, or from flying objects from electrical explosion). Eye protection must meet the requirements of ANSI Z87.1-1979.
3) Filter lenses or plates used in welding operations must be in accordance with 8 CCR 1516, Table EP-1.
4) Employees who need corrective lenses (glasses or contacts) and who are working in environments with potentially harmful exposures may not wear contact lenses and must wear only approved safety glasses or protective goggles.
5) Protective gloves, aprons, shields, or other means or protection must be provided where risk of cuts or exposure to corrosive liquids and chemicals is present.
6) Hard hats are to be provided and worn where danger of falling objects exists. Head protection must comply with the requirements of 8 CCR 1515 and ANSI Z89.1-1989.
7) During high voltage work, hard hats must comply with the requirements of ANSI Z89.1-1971, Safety Requirements for Industrial Protective Helmets of Electrical Workers.
8) Hard hats must be inspected by the wearer each day prior to use for damage to the shell and suspension system.
9) Appropriate foot protection required where there is the risk of foot injuries from hot, corrosive, poisonous substances, falling objects, crushing or penetrating actions, as per 8 CCR 1517 and ANSI Z41.1-1991.
10) Safety-toe footwear must meet the requirements of ANSI Z41.1-1967.
11) NIOSH/MSHA-approved respirators must be provided for regular or emergency use where needed to maintain exposure to toxic chemicals at or below the Cal/OSHA permissible exposure limits. Where respiratory protective equipment is provided, it will be used and maintained in accordance with the company written respiratory protection program, as per 8 CCR 5144.
12) Protective equipment must be maintained in a sanitary condition and ready for use. Such equipment must not be exchanged between employees unless previously sanitized.
13) Where work may potentially involve exposure to corrosive materials, eye wash facilities and a "quick drench" shower must be readily accessible.
14) Ear protection must be provided for protection against the effects of occupational noise exposure when sound levels exceed those of the Cal/OSHA noise standard.
15) Personal protective equipment must be reasonably comfortable, be selected for the hazard present, and not unduly encumber employees' movements.
16) Personal protective equipment must be used in accordance with the manufacturer's instructions.
17) It is the responsibility of the employer to require use of personal protective equipment whenever and wherever warranted. It is the responsibility of the employee to wear personal protective equipment wherever required by the employer.
18) Employees will receive training in the use and care of PPE required for their work. The training will be documented. If it becomes evident that additional training is required (e.g., a supervisor is made aware of improper use of PPE), additional training will be provided.

PORTABLE POWER TOOLS AND EQUIPMENT

1) Grinders, saws, and similar equipment must include appropriate safety guards. Guarding must not be removed from such equipment.
2) Portable circular saws must be equipped with guards above and below the base shoe.
3) Circular saw guards must be checked to assure they are not wedged up, leaving the lower portion of the blade unguarded.
4) In general, rotating or moving parts of equipment must be guarded to prevent physical contact.
5) All cord-connected, electrically-operated tools and equipment must be effectively grounded or be of the approved double-insulated type.
6) Effective guards must be in place over belts, pulleys, chains, sprockets, on equipment such as concrete mixers, air compressors, etc..
7) Portable fans must be provided with full guards or screens having openings 1/2 inch or less.
8) Ground-fault circuit interrupters must be provided on all temporary electrical 15 and 20 ampere circuits, used during periods of construction.
9) Pneumatic and hydraulic hoses on power-operated tools must be checked regularly for deterioration or damage.
10) Portable cord- and plug-connected equipment and extension cords must be visually inspected before use on any workshift. The inspection is to focus on external defects (e.g., loose parts, deformed or missing pins, or damage to outer jacket or insulation) and for evidence of possible internal damage (e.g., pinched or crushed outer jacket). Cord- and plug-connected equipment and extension cords which remain connected once they are put in place and are not exposed to damage need not be visually inspected until they are relocated.
11) Adapters which interrupt the continuity of the equipment grounding connection may not be used.
12) Portable electrical equipment and extension cords may not be used in highly conductive work locations (e.g., in areas inundated with water or other conductive liquids) without the specific authorization of the project foreman.

RECORD-KEEPING

1) Record-keeping is performed in accordance with the requirements stipulated in the company Injury and Illness Prevention Program.
2) Records relating to the IIPP shall include at a minimum, person(s) conducting the inspection or evaluation; the unsafe conditions and work practices that have been identified; and, actions taken to correct the identified condition or work practice.
3) Medical and exposure records are retained in accordance with Title 8, California Code of Regulations, Section 3204 "Access to Employee Exposure and Medical Records."
4) Records of scheduled and unscheduled periodic inspections, as well as other records, including methods used to identify and evaluate workplace conditions and work practices, will be retained.
5) Records and documentation of safety and health training must include at a minimum, the name of employee and/or employee number; date of training; training topic(s); training format; and instructor.
6) Records of employees who have worked for the company for less than one year may be turned over to the employee upon termination as long as the terminated employee signs an

acknowledgement letter documenting the records which have been turned over to him or her.

SCAFFOLDING

1) Any damage to scaffolds, falsework, or other supporting structures shall be immediately reported to the foreman and repaired before use.
2) A trained and experienced "qualified person" must be responsible for scaffold erection and dismantling. A registered civil engineer is required for complicated/extensive scaffolding (refer to 8 CCR 1643-47 for specifics).
3) Planking on scaffolds must extend at least 6 inches over end supports, but not more than 18 inches unless access to the ends is blocked-off.
4) Guardrails are required on scaffolds greater than 7-1/2 feet high. The top edge of the guardrail must be between 42 and 45 inches from the "floor" of the scaffold.
5) Toeboards must be at least 4 inches high.
6) Scaffolding must be set up level (plumb).
7) The minimum dimension width of the base of a rolling or tower scaffold is 1/3 the height.
5) Rolling scaffolding must be locked (caster brakes) and blocked prior to mounting the scaffold.
6) Workers must dismount rolling scaffolds prior to movement of the scaffold.
7) Tools, equipment, materials, etc. which may fall during movement of rolling scaffolds must be lowered to the ground/floor prior to movement of the scaffold.
8) Scaffolding must be kept well away from electrical lines.
9) All scaffolding must be carefully inspected for damage prior to use. Where damage is evident, the scaffolding may not be used until repairs are completed by an authorized individual.
10) Scaffolding must be solidly attached to the structure prior to use.

SUPERVISORS' RESPONSIBILITIES

1) Supervisors' responsibilities are described in the company Injury and Illness Prevention Program. Foremen and superintendents are responsible for administering the IIPP on the jobsite.
2) Demonstrating good safety practices at all times, so that other workers will learn by example.
3) Ensuring that all workers are provided with basic safety training, as described in the IIPP, prior to beginning work; documenting the training.
4) Ensuring that workers are trained in the specific hazards of their work prior to assignment to that work; documenting the training.
5) Enforcing safety rules at all times.
6) Performing daily job hazard inspections. Correcting potentially hazardous situations before work is allowed to begin.
7) Holding toolbox/tailgate safety meetings at least every 10 working days.
8) Completing an OSHA 300 form for occupational injuries and illnesses.
9) Performing or assisting with accident, injury or illness investigations.
10) Ensuring that emergency information (police, fire, medical) and other state-required information and posters are posted at each job site.

11) Ensuring that health and safety information requested by employees is made available to them (e.g., MSDS).

TOOLS AND EQUIPMENT

1) All tools and equipment shall be maintained in good condition.
2) Damaged tools or equipment shall be removed from service and tagged "DEFECTIVE."
3) Pipe wrenches shall not be used as a substitute for other wrenches.
4) Only appropriate tools shall be used for the job.
5) Wrenches shall not be altered by the addition of handle-extensions or "cheaters."
6) Files shall be equipped with handles and not used to punch or pry.
7) A screwdriver shall not be used as a chisel.
8) Wheelbarrows shall not be pushed with handles in an upright position.
9) Portable electric tools shall not be lifted or lowered by means of the power cord. Ropes shall be used.
10) In locations where the use of a portable power tool is difficult, the tool shall be supported by means of a rope or similar support of adequate strength.

TRAFFIC SAFETY

1) Personnel working in or adjoining areas with vehicular traffic are required to wear bright/reflective clothing (shirts, vests, or jackets).
2) "Road Work Ahead" signs must be placed upstream of traffic on **all** routes of access to the work area.
3) Direction of traffic is performed by workers with "slow/stop" paddles and who are properly positioned, that is, maintain direct line-of-sight with each other or, if not, remain in radio contact.
4) For surface street work, cones must be positioned around the work area and sufficiently upstream to adequately allow merging or other vehicular response.
5) When a street is blocked-off, post signs to direct traffic to alternative routes.

TRAINING

1) Training requirements and schedule are included in the company Injury and Illness Prevention Program. It is the intent and policy of the company to fulfill or exceed all Cal/OSHA training requirements.
2) Training requirements are also presented in other written health and safety programs developed by the company, such as the company Hazard Communication Program.
3) All workers are provided with a new hire orientation, including basic safety training, as described in the IIPP, prior to beginning work.
4) Workers engaged in specific activities entailing unique hazards receive additional training prior to assignment to that work.
5) Workers designated as "qualified persons" (i.e., permitted to work on or near exposed energized parts) must be trained in the content of the Cal/OSHA Electrical Safety Orders that pertain to their particular job assignments. In addition, qualified persons must be trained in (a) the skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment; (b) the skill and techniques necessary to determine the nominal voltage of exposed live parts; and (c) the clearance distances specified in the

Cal/OSHA Electrical Safety Orders and the corresponding voltages to which the qualified person may be exposed.

6) Where the company learns of new hazards associated with on-going company work, training will be provided to all affected workers as soon as is feasible.
7) All health and safety training is documented in accordance with the requirements of Injury and Illness Prevention Program.

VEHICLE SAFETY

1) Employees operating vehicles on public thoroughfares must have valid operator's licenses appropriate for the class of vehicle.
2) When ten or more employees, including the driver, are regularly transported in a van, bus or truck, the operator's license must be appropriate for the class of vehicle being driven.
3) Each van, bus or truck used regularly to transport employees, must be equipped with an adequate number of seats (with seat belts).
4) Vehicles used to transport employees must be maintained in good operating condition, including all "safety" equipment (lights, brakes, horns, mirrors, windshields, turn signals).
5) A fully charged fire extinguisher, in good condition, with at least a B:C rating is required in each company vehicle.
6) When cutting tools or tools with sharp edges are carried in passenger compartments of employee transport vehicles, they must be placed in closed boxes or containers which are secured.
7) Employees are prohibited from riding on top of any load which can shift, topple, or otherwise become unstable.
8) Employees shall not work under vehicles supported by jacks or chain hoists, without protective blocking that will prevent injury if jacks or hoists should fail.

WELDING

1) Only authorized and trained personnel are permitted to use welding, cutting or brazing equipment.
2) Each operator must have a copy of the appropriate operating instructions for the equipment and be directed to follow them.
3) Compressed gas cylinders must be regularly examined for obvious signs of defects, deep rusting, or leakage; damaged cylinders must be tagged and returned to vendor.
4) Care must be used in handling and storage of cylinders, safety valves, relief valves, etc., to prevent damage.
5) Precautions must be taken to prevent the mixture of air or oxygen with flammable gases, except at a burner or in a standard torch.
6) Only approved apparatus (torches, regulators, pressure-reducing valves, acetylene generators, manifolds) may be used. Use must be in the manner intended by the manufacturer or supplier; do not use equipment in a manner which was not intended.
7) Compressed gas cylinders must be kept away from sources of heat and areas where they may fall (elevators, stairs, or gangways).
8) It is prohibited to use cylinders as rollers or supports.

9) Cylinders, cylinder valves, couplings, regulators, hoses, and apparatus must be kept free of oily or greasy substances.
10) Care must be taken not to drop or strike cylinders.
11) Unless secured on special trucks, regulators must be removed and valve protection caps put in place before moving cylinders.
12) Cylinders without fixed hand wheels must have keys, handles, or non-adjustable wrenches on stem valves when in service.
13) Never crack a fuel-gas cylinder valve near sources of ignition.
14) Before a regulator is removed, the valve must be closed and gas released from the regulator.
15) Red should be used to identify the acetylene (and other fuel-gas) hose, green for oxygen hose, and black for inert gas and air hose.
16) Pressure-reducing regulators must be used only for the gas and pressures for which they are intended.
17) Open circuit (No Load) voltage of arc welding and cutting machines should be operated as low as possible and not in excess of the recommended limits.
18) When working under wet conditions, automatic controls for reducing no load voltage must be used.
19) Grounding of the machine frame and safety ground connections of portable machines must be checked periodically and prior to each daily first use.
20) Electrodes must be removed from the holders when not in use.
21) Electric power to the welder must be shut off when no one is in attendance.
22) Suitable fire extinguishing equipment must be available for immediate use.
23) Welders are forbidden to coil or loop welding electrode cable around their body.
24) Wet machines must be thoroughly dried and tested before being used.
25) Work and electrode lead cables must be frequently inspected for wear and damage, and replaced when needed.
26) When the object to be welded cannot be moved and fire hazards cannot be removed, shields must be used to confine heat, sparks, and slag.
27) Fire watchers must be present when welding or cutting is performed in locations where a serious fire might develop.
28) Clothing, eye protection helmets, hand shields and goggles must meet ANSI standards.
29) Adequate ventilation or appropriate respiratory protection must be provided where welding or cutting is performed.

TORO ENTERPRISES, INC.

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04/12/2024