



**SAFETY MANAGEMENT
GROUP**

SAFETY MANUAL

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Section 1- Management Safety Policy Statement

Welcome to Safety Management Group. We are glad to welcome you as a new associate and trust your relationship with our company will be mutually rewarding and beneficial.

This **Associate Handbook** is designed to acquaint you with information about associate programs and office policies at Safety Management Group. It is important for you to clearly understand our procedures. Keep this document in a convenient place for future reference. A current version of this document is available in your Paylocity Account.

The success of our company depends upon your cooperation and efforts in adhering to these policies.

To assist you during your corporate orientation, the Payroll/HR Administrator or designated representative will review our corporate procedures, items in the Associate handbook, and explain how your position contributes to the overall success of our company.

During your corporate orientation, if applicable you will be provided with enrollment forms for Major Medical, Life, Long Term Disability, Short Term Disability, Dental Insurance, and the 401(k) program. You will also have an opportunity to have questions answered pertaining to your benefits.

Once again, welcome! If you have any questions, ideas or suggestions, now or in the future, let us know.



Randy Giesecking
President

To assist in providing a safe and healthful work environment for associates, Clients, and visitors, Safety Management Group has established a workplace safety program. This program is a top priority for Safety Management Group. Each Manager has responsibility for implementing, administering, monitoring, and evaluating the safety program. Its success depends on the alertness and personal commitment of all.

Each associate is expected to obey safety rules and to exercise caution in all work activities. Associates must immediately report any unsafe condition to the appropriate supervisor. Associates who: violate safety standards, who cause hazardous or dangerous situations, who fail to report or, where appropriate, remedy such situations, may be subject to corrective action, up to and including termination of employment.

In the case of accidents that result in injury, regardless of how insignificant the injury may appear, associates should immediately notify the Safety Representative or the appropriate Manager. Such reports are necessary to comply with laws and initiate insurance and workers' compensation benefits procedures.

Section 2- Roles and Responsibilities

Purpose

Establish and assign specific safety and health responsibilities and authority of all Safety Management Group associates in developing, maintaining, administering, and implementing the Safety Management Group Health and Safety Program.

References

29 CFR 1926

Definitions

Responsible – The named individual is assigned the task outlined, and is accountable for the completion of the task, even if the actual performance is delegated to other capable and knowledgeable Individuals.

Responsibilities

President

- Establish safety and health program according to standards of OSHA.
- Create safety and health goals for the company.
- Responsible for overall direction and effectiveness of the safety and health program.
- Reviews incident, accident, and property damage.
- Establishes safety goals for the company, annually or as needed.

Safety Representative

- Participates in injury and incident investigations.
- Develops, administers, implements, and enforces the company's safety and health program.
- Keeps OSHA Log and Summary Reports up to date.
- Communicates with regulatory agencies and the company's insurance representative.
- Coordinates safety-training programs for management and associates.
- Maintains and updates all company's safety records and medical records.

Account Managers

- Provide materials, equipment, manpower, and additional resources as needed to support the program.
- Establish and monitor the emergency action plans for project sites.
- Regularly inspects all job-sites and corrects or controls any safety hazards.
- Responds to all associates' safety and health suggestions as appropriate.
- Maintains knowledge of Federal and State OSHA Regulations for each jobsite and work area.
- Provides toolbox talks, proper personal protective equipment, first aid kits, regulation posters, and emergency action plans.
- Actively support the company's safety and health program in verbal and written communication, training, meetings, and inspections and by personal compliance.

Associates

- Establish and monitor the emergency action plans for project sites.

- Establishes and maintains a safe and healthful working environment for all associates and subcontractors.
- Stops and corrects all unsafe practices.
- Inspects tools and equipment to ensure safe operating and arranges for tier repair or replacement when needed.
- Keeps work areas and emergency exits clean and orderly at all times.
- Actively support the company's safety and health program in verbal and written communication, training, meetings, and inspections and by personal compliance.
- Learns and adheres to all safety regulations and policies.
- Keeps work area and emergency exits clean and orderly at all times.
- Follows safe and proper usage of tools and machines used at all jobsites.
- Attends and participates in all safety training sessions.
- Submits safety suggestions and ideas to the Safety Representative.
- Notify their director Supervisor if they are fatigued/exhausted to the point of not being capable of performing their assigned duties in a safe manner.

Section 3- General Safety Policies

Purpose

Establish general company safety rules that are applicable to all associates and operations.

Definitions

General Safety Rules - Rules that are applicable to associates, visitors, suppliers, and subcontractors who may be present on Safety Management Group premises or jobsites, at company functions, or traveling between these locations on Company business. These rules are "common sense" rules and are not meant to replace more specific procedures applicable to specific operation covered by OSHA, EPA, and/or DOT regulations.

Responsibilities

The Manager will ensure that subcontractors, suppliers, and visitors are aware of and comply with the General Safety Rules.

All associates are required to follow these rules. Foremen shall instruct and train their associates in the General Safety Rules.

The Safety Representative shall instruct new associates in the General Safety Rules during New Hire Orientation.

Procedures

Associates shall use care in the performance of their assigned tasks and act in a manner that will assure maximum safety to themselves, fellow associates, and the general public.

All injuries and incidents must be reported immediately to your Manager. Proper forms will be completed, signed, and turned into the Safety Representative.

Horseplay, trickery, scuffling, or other unsafe behavior is prohibited, and those responsible are subject to dismissal.

Power equipment, tools, and other equipment will not be operated without the manufacturer's safety guards or other protective devices in place.

All defective or unsafe equipment, tools, or machinery shall be taken out of service and properly tagged.

All associates shall regularly attend safety meetings.

The more stringent of Company regulations or Government regulations will be adhered to.

Leather type work boots are mandatory. Athletic shoes, soft-soled shoes, sandals, open-toed or open-heeled shoes are not permitted.

The use of drugs, alcohol, or any mind-altering substance will not be tolerated under any circumstances.

A one-day supply of prescription medicine may be carried. The associate's immediate Manager is to be made aware of this situation when it occurs.

No associate will operate machinery or tools that have been locked/tagged out.

All associates shall make themselves familiar with the Emergency Response Plan.

Prior to using, ensure that ladders are in good condition, firmly placed and anchored. Only one associate at a time is to be on the same ladder. All ladders are to conform to OSHA and state regulations.

Do not throw or drop anything from an elevated area without warning persons below.

Learn to lift properly, with the legs and not the back. Get help with heavy loads.

Firearms, explosives, or unlawful weapons are prohibited on company property and in company vehicles of Safety Management Group. Violation of this rule is grounds for immediate dismissal.

Fighting and personal harassment will not be tolerated on company premises and may result in immediate termination.

Observe and obey all "No Smoking" areas, offices, and buildings.

Observe and obey all caution and danger signs/tape, barricades, and safety permit tags.

Rings and/or other jewelry should be removed while working with or around machinery, moving parts, or belts.

Loose or ragged clothing shall not be worn while working with or around machinery, moving parts, belts, or mechanical tools.

Shirts are to be worn at all times and must have sleeves.

Good housekeeping is to be practiced at all times. Waste materials shall be disposed of properly and shall not be allowed to accumulate in the work area. Disposal of hazardous materials will be done in accordance with the manufacturer's recommendations and local/state regulations.

Approved safety containers are to be used for storage and transporting of flammable liquids in quantities of one gallon or more. These containers will be properly labeled at all times.

All hazardous material containers must be labeled.

All personal hand and power tools are required to be in proper working order. This includes strain relief on plugs, ground prongs, proper polarity, cords without cuts or splices, and handles without cracks or splinters.

Specific Rules: Additional safe work practices will be developed and implemented for special case operations and tasks. These special cases may require development of special rules and/or procedures. Besides "in-house" solutions, trade associations, government agencies, professional societies, or academic resource centers may be sources of help in development of these specific rules.

ABRASIVE GRINDING 1926.303

Abrasive wheel bench, stand, or handheld grinders must have safety guards strong enough to withstand bursting wheels. Adjust work rests on bench grinders to a clearance not to exceed 1/8 inch between rest and wheel surface. Inspect and ring-test abrasive wheels before mounting. Always leave wheel in working condition for next user. Properly dress wheel before and after use.

ACCESS 1926.34

In every building or structure, exits shall be so arranged and maintained as to provide free and unobstructed egress from all parts of the building or structure at all times when it is occupied. Access to exits shall be marked by readily visible signs in all cases where the exit or way to reach it is not immediately visible to the occupants. Means of egress shall be continually maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency.

ASBESTOS 1926.1101

Asbestos is a widely used, mineral-based material that is resistant to heat and corrosive chemicals. Depending on the chemical composition, fibers may range in texture from coarse to silky. The properties that make asbestos fibers so valuable are its high-tensile strength, flexibility, heat and chemical resistance, and good frictional properties.

Asbestos fibers enter the body by inhalation of airborne particles or by ingestion and can become embedded in the tissues of the respiratory or digestive systems. Years of exposure to asbestos can cause numerous disabling or fatal diseases. Among these diseases are asbestosis, an emphysema-like condition; lung cancer; mesothelioma, a cancerous tumor that spreads rapidly in the membranes covering the lungs and body organs; and gastrointestinal cancer.

Asbestos can be expected in building siding, floor tile, roofs and pipe insulation. Safety Management Group associates that potentially may have contact with asbestos should not disturb the asbestos and should notify the appropriate personnel at a jobsite. If asbestos is suspected or found in the office environment, do not disturb the suspected material and immediately notify the Safety Representative. The Safety Representative will contact the appropriate personnel for testing and, if necessary, removal of the material.

ATTITUDE

All company associates are required to treat safety as the number one priority. As such, they are expected to report work in good mental and physical condition to safely perform their assigned duties. Before starting any task, associates must consider the possible affects of their actions on themselves and others and take appropriate protective measures.

COMPRESSED GAS CYLINDERS 1926.350

Put valve protection caps in place before compressed gas cylinders are transported, moved, or stored. Cylinder valves will be closed when work is finished and when cylinders are empty or being moved.

Compressed gas cylinders will be secured in an upright position at all times. Keep cylinders at a safe distance, or shield from welding or cutting operations and place where they cannot become part of an electrical circuit.

Oxygen and fuel gas regulators must be in proper working order while in use. Oxygen and acetylene cylinders are to be stored at least 20 feet apart or separated by a 5-foot square one-half hour fire rated wall.

CONCRETE AND MASONRY 1926.700

Appropriate personal protective equipment (i.e., hard hats, safety glasses, gloves, dust masks, etc.) depending on the nature of exposure to hazards will be worn.

Associates must wear protective head and face equipment when applying a cement, sand, and water mixture through a pneumatic hose. Associates also must wear safety belts or equivalent fall protection equipment when placing or tying reinforcing steel more than six feet (1.8m) above any working surface.

Riding concrete buckets. Associates must be prohibited from riding concrete buckets or working under the buckets while the buckets are being elevated or lowered into position. Whenever practical, elevated buckets must be routed so that the fewest possible associates are exposed to the danger of falling buckets.

Reinforcing Steel. All exposed reinforcing steel must be bent or covered with rebar caps to prevent impalement or injury to workers.

Concrete Buckets. Concrete buckets equipped with hydraulic or pneumatic gates must have positive safety latches or similar safety devices to prevent premature or accidental dumping and must be designed to prevent concrete from hanging up on top and the sides.

Pumping systems. Concrete pumping systems using discharge pipes must be provided with pipe supports designed for 100 percent overload.

Compressed air hoses used on concrete pumping systems also must be provided with positive fail-safe joint connectors to prevent separation of sections when pressurized.

Power concrete trowels. Manually guided powered and rotating type concrete troweling machines must be equipped with an automatic control switch to shut off the power whenever an operator's hands are removed from the equipment handles.

Bull floats. Bull float handles, when they might contact energized electrical conductors, must be constructed of nonconductive sheath for protection.

Masonry saws. Blades of masonry saws must be covered with a semicircular enclosure to retain blade fragments. The regulation allows an 180-degree angle of exposure for masonry saws such as diamond or tungsten carbide type (water cooled).

CONFINED SPACE 1910.146 and 1926.1203

Safety Management Group policy prohibits associates from entering into confined spaces unless appropriate training has been provided. Any worker entering a confined space must have appropriate training according to the applicable Occupational Safety and Health Administration regulations and/or owner or contractor requirements. A confined space has limited or restricted means for entry and exit and is large enough for a worker to enter and perform assigned work, and is a space that is not intended for continuous worker occupancy.

Examples of confined spaces include, but are not limited to, tanks, boilers, pits, silos, ventilation and exhaust ducts, sewers, manholes, pipelines, ditches, tunnels, and some false ceilings.

DEMOLITION

Safety Management Group associates will be required to wear durable gloves, eye protection, and long-sleeved shirts in addition to their standard Personal Protective Equipment when performing selective demolition operations.

Prior to beginning demolition operations, an engineering survey will be made by a qualified person. This survey must determine the condition of the framing, floors, and walls, and will also determine the possibility of an unplanned collapse of any part of the structure. Adjacent structures will be checked for structural integrity. Written evidence of the results of this survey is to be given to the owner, or his authorized representative; and a copy of this report is to be placed in the job file at the Corporate Office.

Prior to beginning demolition operations, we will obtain from the owner a site survey identifying the locations of asbestos and lead containing materials. If the owner is unable to provide this information, a testing agency will be employed that can identify and/or verify areas suspected of containing these materials prior to their disturbance during the demolition operation. A copy of the results of this testing is to be retained in the job file at the Corporate Office.

When contractors are required to work in a building that has been damaged by fire, flood, explosion, or similar types of events, the walls and/or floors are to be braced and/or shored.

All electric, gas, water, steam, sewer, and other service lines must be shut off, capped, or otherwise controlled outside the building line before demolition work is started. Any utility company whose services are affected will be notified in advance.

If electric, gas, water, steam, sewer, or other utilities are necessary during demolition, their lines must be temporarily relocated and protected.

Before demolition begins, the building will be checked to determine whether any hazardous chemicals, gases, explosives, flammable materials, or similarly dangerous substances have been used in pipes, tanks, or other equipment on the property. If such substances are found or their presence is suspected, the hazard must be eliminated before demolition is started. Any hazardous glass fragments must be removed.

All floor and wall openings which pose a threat of being fallen through must be protected.

If debris is dropped through holes in the floor without the use of chutes, the area onto which the material is dropped will be completely enclosed with barricades not less than 42 inches high and not less than 6 feet back from the project openings. Signs must be posted at each level, warning of the hazard of falling materials. Removal of the debris from the lower area must not be permitted until debris handling from above has ended.

Floor openings not used as material drops will be covered with material that can withstand the weight of any potential load. The floor opening cover will be secured to prevent it from being accidentally moved.

Demolition of exterior wall construction and floor construction will begin at the top of the structure and proceed downward, except for the cutting of holes in floors or walls for chutes and material drops, preparation of storage space, and similar preparatory work. Each story of exterior wall and floor construction will be removed and dropped into the storage space prior to removing exterior walls and floor construction in the story below.

Entrances to multi-story structures being demolished must be completely protected by sidewalk sheds, canopies, or both. Protection will be provided from the face of the building for a minimum of 8 feet. Canopies must be at least 2 feet wider (1 foot each side) than the opening or entrance being protected and will be capable of sustaining a load of 150 pounds per square foot.

ELECTRICAL – GENERAL 1926.400 - .449

All extension cords must be 3-wire type, protected from damage, and not fastened with staples, hung from nails, or suspended from wires. No cord or tool with a damaged ground plug may be used. Splices must have soldered wire connections with insulation equal to the cable. Worn or frayed cables may not be used.

Except where bulbs are deeply recessed in a reflector, bulbs on temporary light will be equipped with guards. Temporary lights may not be suspended by their electrical cords unless designed to do so.

Receptacles for attachment plugs will be of approved, concealed contact type. Where different voltages, frequencies, or types of current are applied, receptacles must be such that attachment plugs are not interchangeable.

Each disconnecting means for motors and appliances, and each service feeder or branch circuit at point of origin, must be legibly marked to indicate its purpose, unless located and arranged so that the purpose is evident.

Cable passing through work areas will be covered or elevated to protect from damage. Boxes with covers for the purpose of disconnecting must be securely and rigidly fastened to mounting surface.

No associate may work in proximity to any electric power circuit that may be contacted during the course of work, unless protected against electric shock by de-energizing circuit and grounding it or by guarding with effective insulation. In work areas where the exact location of underground electric power lines is unknown, workers using jackhammers, bars or other hand tools which may contact lines must wear insulated protective gloves.

ELECTRICAL – GFCI OR INSPECTION 1926.404

15 and 20-ampere receptacle outlets on single-phase, 120-volt circuits for construction sites which are not a part of the permanent wiring of the building or structure, must be protected by ground-fault circuit interrupters.

Inspect each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, except cords sets and receptacles which are fixed and not exposed to damage, for external defects and possible internal damage. Remove from service or repair immediately any defective items.

ERGONOMICS

Understanding ergonomics is to understand the anatomy, physiology and the psychology of people and design the workplace accordingly. By fitting the job to the person, we can improve both associate well-being and workplace efficiency. Safety Management Group associate complaints or suggestions are welcome without reprisal. Associates should promptly and accurately report signs of workplace discomfort, aches, pains and carpal tunnel syndrome so they can be evaluated, and if needed, treated. All workstations shall be designed to accommodate the associate who actually works on given tasks at that station. Proper and correct lifting techniques and proper body mechanics should be used when lifting or moving all material.

To assist in preventing ergonomic concerns, Safety Management Group personnel are requested to consider the following when performing work activities:

- Do limbering exercises before starting a task.
- Take frequent breaks while performing a continuous task.
- Don't repeat the same motion hour after hour.
- Keep yourself physically fit.
- Adjust workstations to assist with proper body mechanics.

EXCAVATIONS 1926.650 - .652

All excavations must be evaluated and constructed under the supervision of a competent person as defined by IOSHA Standards. Before starting an excavation, local utility companies shall be contacted to determine the location of potential underground utilities. All excavations greater than five feet in depth must be sloped, shored or protected by means of a trench box. The angle of the sloping, construction of the shoring, or dimensions of the trench box will depend on the classification of the soil (i.e. Stable Rock, Type A, Type B, Type C, etc.). A stairway, ladder, ramp or other safe means is required for access into all excavations greater than four feet in depth and must be within twenty-five feet of personnel in the trench. Barricades shall be erected around excavations that are left unattended. Safety Management Group personnel should not enter excavations that are not created following these guidelines.

FALL PROTECTION 1926.500

Pre Project Planning - A systematic evaluation of the building structure, openings and skylights, and fall exposures must be made prior to construction or demolition operations. Pre project planning for safety is best performed in conjunction with the safety representative and the project managers. A written site-specific fall prevention plan may be appropriate for particularly hazardous projects.

Generally, fall protection for contractor personnel is required whenever there is a potential for fall exposure of six feet or more.

Existing regulations allow alternative systems to protect contractor personnel from fall-related accidents such as:

- Guardrail Systems
- Controlled Access Zones
- Safety Net Systems
- Safety Monitoring Systems
- Personal Fall Arrest Systems
- Covers (for holes in roofs, etc.)

Project Managers should implement the most suitable form of fall protection systems for each project, task, and contractor associate. Decisions and action required to implement fall protection must occur prior to operations.

FIRE PROTECTION 1926.150 -.155

All firefighting equipment will be conspicuously located and readily accessible to all personnel. The firefighting equipment must be visually inspected monthly and subjected to an annual maintenance check, maintained at all times, and replenished immediately after discharge.

Employees will be trained on the proper use of firefighting equipment during new hire orientation and at least annually thereafter. The training program will include general principles of fire extinguisher use and the hazards involved in incipient stage fires.

A fire extinguisher rated 2A must be provided for each 3000 square feet of building space. The travel distance to the nearest fire extinguisher shall not exceed 100 feet. At least one fire extinguisher will be located adjacent to each stairway on each floor. This applies to both the Safety Management Group facility office and the jobsite. On-site contractors must ensure that fire extinguishers are readily available and that associates are trained, a fire protection program has been developed, and that an alarm system for evacuation purposes is in place for the jobsite.

Classification of fires include the following:

- Class A: Fire involving ordinary combustible materials such as wood and paper. Can be extinguished with water or solutions containing large percentages of water.
- Class B: Fire involving flammable materials such as greases and oils. Can be extinguished by smothering or eliminating air.
- Class C: Fire in or near electrical equipment, where the use of nonconductive extinguishing agents are of first importance such as dry chemicals.
- Class D: Fire involving flammable materials such as magnesium. Can be extinguished with dry powders.

A jobsite may also contain flammable materials that are any liquid, solid, or gas that has a flash point above 100°F. Flammable liquids shall be stored in and dispense from approved containers. Adequate ventilation for storage and use of flammable liquids shall be provided. Adequate ventilation and elimination of all ignition sources is mandatory when dealing with flammable vapors. All open flames and sparks shall be eliminated when flammable liquids are used.

To prevent spontaneous combustion at the jobsite, flammable waste must be stored in airtight containers. Flammable waste material containers must be emptied daily. To prevent static electricity, flammable liquid dispensing vessels must be grounded. Containers must be bonded when transferring flammable liquids to prevent an arc from occurring.

When welding and cutting is performed at the jobsite, fire surveys must be performed prior to the inception of work. Combustible materials must be removed or covered prior to welding or cutting and a fire extinguisher must be present. Hot work permits may be issued before any welding or cutting is performed. Combustibles and flammable materials must be kept away from hot surfaces.

FIRST AID AND CPR

In the absence of a clinic or doctor that is reasonably accessible in terms of time and distance, at least 1 person from the organization will be trained and certified to provide first aid and Cardio Pulmonary Resuscitation (CPR). All Project Managers will be certified in first aid and CPR.

A first aid kit will be provided for each jobsite. Foremen are responsible to ensure that the kits are properly stocked and maintained.

Only trained first aid personnel shall administer first aid at the jobsite.

FLAMMABLE LIQUIDS 1926.152

Only approved containers (i.e. metal safety cans with self-closing lids) and portable tanks will be used for storage and handling of flammable liquids.

No more than 25 gallons of flammable liquids may be stored in a room outside of an approved storage cabinet.

No more than three storage cabinets may be located in a single storage area. Inside storage for flammable liquids must be of fire-resistive construction, with self-closing fire doors, 4-inch sills or depressed floors, a ventilation system of at least six air changes per hour, and electrical wiring and equipment approved for Class 1, Division 1 locations.

Storage in containers outside of buildings may not exceed 1,000 gallons in any one pile or area. Grade storage areas to divert possible spills away from buildings or other exposures or surround storage areas with a curb or dike. Locate storage areas at least 20 feet from any building and keep free from weeds, debris, and other combustible materials. Keep flammable liquids in closed containers when not in use.

FLOOR OPENINGS, OPEN SIDES, HATCHWAYS, ETC. 1926.500

Guard openings with a standard guardrail and toe boards or cover. Provide railing on all exposed sides, except at entrances to stairways. Guardrails will be constructed to withstand 200 lbs. of force.

Every open-sided floor or platform, 6 feet or more above adjacent floor or ground level, must be guarded by a standard railing or equivalent, on all open sides except where there is entrance to a ramp, stairway, or fixed ladder.

Runways 6 feet high or more need standard railings on all open sides.

Guard ladder way floor openings or platforms with standard guardrails and standard toe boards on all exposed sides, except at entrance to opening, with passage through the railing provided by a swinging gate or offset so a person cannot walk directly into opening.

Temporary floor opening will have standard railings or effective covers. Floor holes into which persons can accidentally walk will be guarded by either a standard railing with standard toe board on all exposed sides, or a standard floor hole cover.

While the cover is not in place, a standard railing will protect the floor hole.

GASES, VAPORS, FUMES, DUST AND MISTS 1926.55

Exposure to toxic gases, vapors, fumes, dusts, and mists at a concentration above those specified in the "Threshold Limit Values of Airborne Contaminants" of the ACGIH should be avoided.

When engineering and administrative controls are not feasible to achieve full compliance, protective equipment or other protective measures will be used to keep the exposure of associates to air contaminants within the limits prescribed. A technically qualified person must review any equipment and technical measures used for the purpose for each particular use. Associates will wear all furnished equipment at all times.

HAND TOOLS 1926.300 - .307

Safety Management Group associates will not use unsafe hand tools. Whether furnished by Safety Management Group or the employee, the tools must be maintained in a safe condition.

Wrenches may not be used when jaws are sprung to the point slippage occurs. Keep impact tools free of mushroomed heads. Keep wooden tool handles free of splinters or cracks and assure a tight connection between the tool head and the handle.

Electric-power operated tools will either be approved double insulated, be properly grounded, or used with ground fault circuit interrupters.

HEATING DEVICES, TEMPORARY 1926.154

Fresh air must be present in sufficient quantities to maintain the safety of workers. Solid fuel salamanders are prohibited in buildings and on scaffolds.

HOISTS, MATERIAL AND PERSONNEL 1926.552

Rated load capacities, recommended operating speeds, and special hazard warnings or instructions posted on cars and platforms may not be exceeded. Substantial full width gates or bars will protect entrances to material hoists. Hoist way doors or gates of personnel hoists will be not less than 6 feet 6 inches high and be protected with mechanical locks that cannot be operated from the landing side and are accessible only to persons on the car. Provide overhead protective covering on the top of the hoist cage or platform.

HORSEPLAY

All disruptive activities usually referred to as "horseplay" is forbidden.

HOUSEKEEPING 1926.25

Form and scrap lumber with protruding nails and other debris will be kept clear from work areas. Remove combustible scrap and debris at regular intervals. Containers will be provided for collection and separations of all refuse. Covers are required on containers used for flammable or harmful substances.

At the end of each phase of work, return all tools and excess material to proper storage. Clean up all debris before moving on to the next phase. Associates are responsible for keeping their work areas clean.

HYDRAULIC EQUIPMENT

Never go under any type of load supported by hydraulics unless you are certain it is blocked by other means of support such as props or load jacks.

Never ride in the bucket of a hydraulic machine.

Keep clear of any moving parts of a hydraulic system. A hydraulic system produces several thousand pounds of pressure and could cause amputation if caught in the path of movement.

Never operate a hydraulic system or machine unless you have had proper training.

Avoid overloading a hydraulic system; this can lead to mechanical failure and cause hydraulic fluid lines to burst.

Never leave equipment unattended while running. Operator must remain at the controls during operation.

Stand clear of dump trucks during dumping operations. If attempting to free a stuck load, shut the truck off.

ILLUMINATION 1926.26

Construction areas should be lit to not less than minimum illumination intensities listed while work is in progress.

Illumination of general construction areas: General intensity – 5 foot-candles for construction areas, concrete placement, active storage areas, loading platforms, refueling and field maintenance areas and stairways.

INJURIES

All injuries, even those that appear to be slight, will be reported immediately to your supervisor.

When approved by attending physician, Safety Management Group will attempt to assign the associate to light duty work.

INORGANIC ARSENIC

All employees will receive awareness training on inorganic arsenic, when required by an owner. Safety Management Group does not perform any work activities with inorganic arsenic. All work activities of this type will be performed by a subcontractor.

LADDERS

Ladders shall be inspected frequently for visible defects and those which have developed defects shall be withdrawn from service for repair or destruction. (Defective ladders must be tagged or marked as “Dangerous, Do Not Use”) The inspection includes but is not limited to the following:

- Cracked or missing cleats
- Cracked side rails
- Decaying and rotted wood
- Installation of rubber feet
- Nonconductive
- Slope requirements
- Handrail requirements
- Landing requirements
- Construction requirements
- Tie-off requirements

- 3-foot extension requirements

When transporting, ladders should be carried in the horizontal position to avoid contact with overhead electrical conductors.

If a ladder does not pass inspection, it should be removed until the necessary repairs can be made. If for some reason the stairway or ladder cannot be removed, it must be "TAGGED-OUT" of service until the necessary repairs can be made. **DO NOT USE AN UNSAFE LADDER!**

A ladder shall be provided at all personnel points of access when there is a break in elevation of 19" or more to gain access to different levels of the building structure, and no ramp, runway, sloped embankment, or personnel hoist is provided.

- Each ladder shall be capable of supporting 4 times its maximum intended load.
- Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced.
- Ladder components shall be surfaced to prevent injury to an associate from punctures or lacerations, and to prevent snagging of clothing.

Ladder side rails shall extend 3 feet above the landing surface to which the ladder is used to gain access, or when such an extension is not possible the ladder shall be secured from movement at its top to a rigid support that will not deflect, a grasping device, such as a grab rail, shall be provided to assist associates in mounting and dismounting the ladder.

- Ladders shall be maintained free of oil, grease, and other slipping hazards.
- Ladders shall only be used on level stable surfaces, unless secured to prevent accidental displacement.
- Ladders placed in passageways, doorways, or driveways shall be completely secured, or the area shall be completely barricaded to keep activities away from the ladder.

The areas around the top and base of the ladder shall be kept clear.

- Ladders shall not be moved, shifted, or extended while occupied.
- The top or top step shall not be used for a step on a stepladder.
- Ladders with defects **SHALL BE PLAINLY MARKED - "DO NOT USE" AND REMOVE FROM SERVICE.**
- Associates shall use at least one hand to grasp the ladder when ascending or descending
- Associates shall not carry any objects or loads that could cause the associate to lose balance and fall.
- Ladders will only be used for their intended use.

Portable Ladder Safety Rules

Always inspect ladders before using or tag out defective ladders. Inspect for the following:

- Broken or damaged cleats or grippers
- Rungs not tightly joined to the side rails
- Broken or split side rails
- Loose or damaged hinge spreaders
- Angle brackets must not be broken

Straight ladders will be equipped with cleats or grippers. When in use, the ladder will be lashed at the top and secured at the bottom whenever possible.

Ladders placed in doors or aisle ways of hazardous areas shall be guarded by barricades or a watch person. Warning signs will be posted.

Straight ladders will be placed at the proper angle. The distance from the wall to the base of the ladder will be one fourth of the working length of the ladder.

Straight ladders used for accessing an upper landing surface will have the side rails of the ladder extended at least three feet above the landing.

Stepladders higher than ten feet will be secured or held by another person. Do not stand on the top step or cap of the ladder.

Always face the ladder when ascending and descending. Use both hands. All tools or equipment will be hauled up or down by the use of a hand line.

Do not overreach and always keep your belt buckle inside the side rails. Ladders will not be moved, shifted, or extended while occupied by anyone.

Ladders must not be used as scaffolding.

Do not splice ladders together to make them longer.

Do not leave ladders unattended unless they are secured in place.

Remove grease, oil, and other debris from your hands and feet before climbing.

Only one person shall be on a ladder at any given time.

Always clean and return ladders after use to the same storage area where they came from.

LASERS 1926.102(b)(2)

Only trained associates will be allowed to operate lasers. Associates will wear proper eye protection where there is a potential exposure to laser light greater than 0.005 watts (5 milliwatts).

Beam shutters or caps will be utilized, or laser turned off, when laser transmission is not actually required. When lasers are left unattended for a substantial period of time, turn them off.

LEAD 1926.62

Lead is a heavy metal and is a basic chemical element. It can combine with various other substances to form numerous construction materials including lead-based paint, wire insulation, solder, ground soil and welding materials.

When absorbed into the body in certain doses lead is toxic. Lead is most likely to be absorbed into the body by inhalation and ingestion when scattered through the air as a dust, fume, or mist. A significant portion of the lead inhaled or ingested gets into the blood stream.

Once in the blood stream, lead is circulated through the body and stored in various organs and body tissues. Some of this lead is quickly filtered out of the body excreted, but some remains in the blood and tissues. As exposure continues, the amount stored will increase if the body is absorbing more lead than it is excreting. The lead stored in the tissues can slowly cause irreversible damage, first to individual cells, then to organs and whole-body systems.

Tasks most likely to create exposures to lead over acceptable levels include manual demolition of structures, abrasive blasting, power tool cleaning, spray-painting, and welding, cutting or burning on any structure where lead-containing coatings or paint are present.

The Safety Management Group associates that potentially may have contact operations similar to those described above should notify the appropriate personnel at a jobsite. If lead or the above tasks are suspected or found in the office environment, do not disturb the suspected material and immediately notify the Safety Representative. The Safety Representative will contact the appropriate personnel for testing and, if necessary, removal of the material.

LIFTS 1926.453

Articulating boom lifts are to be operated by only trained and qualified individuals. Fall protection (safety harnesses) shall be worn during operations of the articulating boom lifts. "Deadman" safety switches shall not be altered.

Hi-jacks shall not be used without outriggers fully extended. The safety chain must be in place across the entrance when in use.

When using vertical lifts, such as hi-jacks or scissors lifts, fall protection is recommended but not mandated. Manufacturer safety recommendations shall be followed while operating lift equipment.

LIQUIFIED PETROLEUM GAS (LPG) 1926.153

Each system will have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type. Each container and vaporizer must be provided with one or more approved safety relief valves or devices. Containers will be placed upright on firm foundations or otherwise firmly secured.

Portable heaters must be equipped with an approved automatic device to shut off the flow of gas in event of flame failure. Storage of LPG within buildings is prohibited. Storage locations must have at least one approved portable fire extinguisher, rated not less than 20-B.C.

LOCKOUT/TAGOUT 1910.147

Before working on a process, all energies (electrical, mechanical, thermal, pneumatic, chemical, hydraulic, etc.) need to be purged, dissipated or locked out. Appropriate Lockout/Tagout procedures shall be followed. If the equipment or system can be completely locked out with a single lock, the lock is to be placed on the switch or valve handle and chained in the closed position. Each craftperson shall always place their own lock and tag.

Lockout tags are used to provide information about the lockout and should accompany the craft person's personal lock. A lockout tag should have the craft person's name, company, date and work being performed.

This tag is accompanied by a lock (if possible), placed on the switch or valve handle and chained in the closed position. Each craftperson shall always place a lock and tag at each energy source.

After placing the lock and tag, the switches shall be checked to determine that the equipment has been locked out. All lockout operations are to be in conjunction with any other crafts that may be working on the system or machine.

Once the work is complete on the process, the person who installed the tag and lock must remove them and notify the proper persons that the job is complete.

PEDESTRIANS AND DRIVING SAFETY

Working trucks must frequently stop in high traffic areas to perform off-loading of material. This activity frequently requires our trucks to stop in lanes that carry traffic. If work is in these areas or ones with similar traffic patterns, you should set out florescent cones behind the truck to let people know the truck is stopped.

When driving a truck, you must exercise greater caution than when driving a car. Not only must all traffic laws be obeyed, but frequently you may need to drive slower than the actual speed limit. This is especially true if the truck is heavily loaded.

POTABLE WATER 1926.51

An adequate supply of potable water shall be provided at all jobsites. Portable containers used to dispense drinking water shall be capable of being tightly closed, labeled, and equipped with a tap. Water shall not be dipped from containers.

Any container used to distribute drinking water shall be clearly marked as to the nature of its contents and not used for any other purpose. Where single service cups (to be used but once) are supplied, both a sanitary container for the unused cups and a receptacle for disposing of the used cups shall be provided.

POWER INDUSTRIAL TRUCKS

The operator must inspect lift trucks before each shift. If the truck is not safe to use, it must be taken out of service immediately.

Trucks that are used continually, shall be inspected every shift. Any defects or items to be repaired shall be reported to maintenance immediately upon discovery. Repairs that affect safety must be made before the truck is put back into service.

All inspections shall be conducted in accordance to manufactures recommendations. Only trained and authorized personnel shall be used in the maintenance and repairs of the trucks.

The associate must complete and receive satisfactory performance in all categories of forklift testing prior to being issued a license.

The associate shall have a valid driver's license.

Only trained and licensed operators will be permitted to operate a powered lift truck.

Lift truck training shall consist of classroom participation, instruction and operator's demonstration of safe operating techniques, and written exam.

A certification letter will be issued upon successful completion of the above-mentioned items. The participant must receive 80% or better on the written exam and must demonstrate competence in all areas of the operator's demonstration of safe driving.

POWER OPERATED HAND TOOLS 1926.302

Electric power operated tools shall either be of the approved double-insulated type or grounded in accordance with the electrical standard (Subpart K). All power tools will be maintained in a safe condition.

Compressed air used for cleaning purposes may not exceed 30 psi, and then only in conjunction with effective chip guarding and personal protective equipment. Exceptions to 30 psi are allowed only for concrete form, mill scale, and similar cleaning operations. The use of compressed air to clean off yourself or other workers is not allowed.

No associate will operate electric, gas or hand-held powered tools or equipment unless familiar with the use of the item and the safety precautions required.

Project Managers will provide necessary safety information for all tasks and equipment. Only trained associates will be allowed to operate powder-actuated tools.

All powder actuated tools will be tested daily before use and all defects discovered before or during use will be corrected. Tools will not be loaded until immediately before use. Loaded tools will not be left unattended.

Secure pneumatic tools to hose in a positive manner to prevent accidental disconnection. Install and maintain safety clips or retainers on pneumatic impact tools to prevent attachments from being accidentally expelled. All hoses exceeding 1/2 inch inside diameter require safety devices at the source of supply to reduce pressure in case of hose failure.

All power tools must have the proper guards in place. The guard may not be manipulated in such way that will compromise its integrity or compromise the protection in which intended. Guarding will meet the requirements set forth in ANSI B15.1.

Appropriate PPE must be worn at all times when operating power tools.

All defective tools must be removed from service and tagged.

PROTECTION OF THE PUBLIC

All company personnel are charged with aiding in the protection of the public including, as your job description dictates, installation and maintenance of signs, signals, lights, fences, guardrails, ramps, temporary sidewalks, barricades, overhead protection, etc. as may be necessary.

RAILINGS 1926.1052

A standard railing will consist of top rail, intermediate rail, toe board, and posts, and have a vertical height of approximately 42 inches from upper surface of top rail to floor, platform, etc. The top rail of a railing will be smooth surfaced, with strength to withstand at least 200 pounds. The intermediate rail will be approximately halfway between top rail and floor. A stair railing will be construction similar to a standard railing, but the vertical height will not be more

than 34 inches nor less than 30 inches from upper surface of top rail to surface of tread in line with face of riser at forward edge of tread.

RECORDKEEPING 29 CFR 1904

The OSHA 300 Log is used for recording and classifying recordable occupational injuries and illnesses, and for noting the extent and outcome of each case. The log shows when the occupational injury or illness occurred, to whom, what the injured or ill person's regular job was at the time of the injury or illness exposure, the department in which the person was employed, the kind of injury or illness, how much time was lost, and what the case resulted in.

The safety representative is responsible for the preparation and maintenance of the OSHA 300 Log.

RESPIRATORY PROTECTION 1910.134 (1926.103 refers to complying with 1910 guidelines)

Safety Management Group associates will not normally be required to wear respirators. Jobs requiring respiratory protection will be performed by designated individuals who have been properly trained, medically evaluated, and fit tested.

Because of our scope of work, associates will not normally be exposed to any situations requiring the use of a respirator. If a situation arises in which the use of respiratory protection is required, report it to your safety representative immediately.

Safety Management Group will provide respirators at the request of an employee to use their own respirator, if it does not create a hazard. If it is permitted, then Safety Management Group will provide the employee with the information captioned in Appendix D of the 1910.134 regulation.

The employee will have to follow the protocol of ensuring that they are medically cleared to use the respirator and that they follow the guidelines of cleaning storing and maintaining the respirator so that it does not present a hazard. The only exception is if the employee uses a dust mask or a filtering facepiece respirator where no actual hazard exists.

RIGGING 1926.251

Wire ropes, chains, ropes and other rigging equipment will be inspected prior to use and as necessary during use to assure their safety. Remove defective rigging equipment from service immediately.

Job or shop hooks and links, or makeshift fasteners, formed from bolts, rods, or other such attachments will not be used. When U-bolts are used for eye splices, the U-bolt will be applied so the "U" section is in contact with dead end of rope.

All latches will include safety latches as required by the manufacturer. Any hooks without the appropriate latches will be removed from service until properly repaired or replaced.

The rated capacity of all rigging equipment shall not be exceeded. Identification markings, indicating rated capacity for the types of hitches used, the angle upon which it is based, and the number of legs if more than one, will be permanently affixed to the rigging.

All rigging equipment will be removed from the work area when not in use.

Taglines will be used unless their use creates an unsafe condition.

All employees will stay clear of all suspended loads.

SCAFFOLDING 1926.451

Scaffolds will be capable of supporting 4 times maximum intended load and will be erected on sound, rigid footing, capable of carrying the maximum intended load without settling or displacement.

Guardrails and toe boards will be installed on all open sides and ends of platforms more than 10 feet above ground or floor. Exceptions to this would be needle beam scaffolds and floats which require the use of safety harnesses and shock absorbing lanyards. Scaffolds 4 feet to 10 feet in height, with a minimum dimension in either direction of less than 45 inches, will have standard guardrails installed on all sides and ends.

Each scaffold shall be fully planked. Scaffold planks will extend over end supports not less than 6 inches nor more than 12 inches. Scaffolding and accessories with defective parts will be immediately replaced or repaired. Planking will be Scaffold Grade, or equivalent, as recognized by approved grading rules for the species of wood used. Overlap scaffold planking a minimum of 12 inches or secure from movement.

Scaffolds will be inspected by a competent person prior to use. All defective or unsafe scaffolds will be tagged out of service by the competent person.

Training Requirements

- Each employee who performs work while on a scaffold must be trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. The training shall include the following areas, as applicable:
 - The nature of any electrical hazards, fall protection, and falling object hazards in the work area;
 - The correct procedures for dealing with electrical hazards and for erecting, maintaining and disassembling the fall protection systems and falling object protection systems being used;
 - The proper use of the scaffold, and the proper handling of materials on the scaffold;
 - The maximum intended load and the load carrying capacities of the scaffolds used; and;
 - The proper procedures in the use of PPE.

- Each employee involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold must be trained by a competent person to recognize any hazards associated with the work in question. The training shall include the following areas, as applicable:
 - The nature of scaffold hazards;
 - The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting and maintaining the type of scaffold in question;
 - The design criteria, maximum intended load-carrying capacity and intended use of the scaffold in question;
 - The proper procedures in the use of PPE.

- When there is reason to believe that a contractor employee lacks the skill or understanding needed for safe work involving the erection, use or dismantling of scaffolds, the employee shall be retrained so that the requisite proficiency is regained.
- Retraining is required in at least the following situations:
 - Where changes at the worksite present a hazard about which an employee has not been previously trained;
 - Where changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard about which an employee has not been previously trained;
 - Where inadequacies in an affected employee's work involving scaffolds indicate that the employee has not retained the requisite proficiency.

SIGNS 1926.200

For the protection of all, warning signs such as "No Smoking," "Keep Out," "Eye Protection Required," "Out of Order-Do Not Use," and "Authorized Personnel" will be posted. All associates will obey these directions and aid in maintaining the signs.

SILICA 1910.1053 and 1926.1153

All employees will receive awareness training on silica, when required by an owner. Safety Management Group does not perform any work activities with silica. All work activities of this type will be performed by a subcontractor.

STAIRS 1926.1052

Flights of stairs having four or more risers will be equipped with standard stair railings or handrails as specified below. Stairways less than 44 inches wide with one side open must have at least one stair railing on the open side. Stairways less than 44 wide having both sides open must have one stair railing on each side. Stairways more than 44 inches wide by less than 88 inches wide must have one handrail on each enclosed side and one stair railing on each open side.

Raise height and tread width will be uniform throughout any flight of stairs.

STORAGE 1926.250

All materials stored in tiers will be secured to prevent sliding, failing or collapse. Aisles and passageways will be kept clear and in good repair. Stored materials will not obstruct exits. Material stored in buildings under construction shall not be placed within 6' of any hoist way or inside floor openings, nor within 10 feet of an exterior wall that does not extend above the top of the material stored. Materials shall not be stored on scaffolds or runways in excess of supplies needed for immediate operations.

TOILETS 1926.51

Toilets will be provided according to the following: 20 or fewer persons--one facility 20 or more persons--one toilet set and one urinal per 40 persons; 200 or more persons --one toilet seat and one urinal per 50 persons. Remember to provide facilities with locks for female associates.

WATER HAZARDS

All employees will receive awareness training on water hazards, when required by an owner. Safety Management Group does not perform any work activities around water. All work activities of this type will be performed by a subcontractor.

WELDING, CUTTING AND HEATING 1926.350 - .354

Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch, etc.) for fire prevention will be taken in areas where welding or other "hot work" is being done. No welding, cutting or heating will be done where the application of flammable paints, or presence of other flammable compounds, or heavy dust concentrations, creates a fire hazard. Equip torches with anti-flashback devices.

Arc welding and cutting operations will be shielded by noncombustible or flameproof shields to protect associates from direct arc rays.

Welding, cutting and adjacent areas must be checked no sooner than one-half hour after completion of operations.

When electrode holders are left unattended, electrodes will be removed, and holder will be placed or protected so they cannot make electrical contact. All arc welding and cutting cables will be completely insulated. There will be no repairs or splices within 10 feet of electrode holder, except where splices are insulated equal to the insulation of the cable. Defective cable will be repaired or replaced.

Fuel gas and oxygen hose must be easily distinguishable and not interchangeable. Inspect hoses at beginning of each shift and repair or replace if defective.

General mechanical or local exhaust ventilation will be provided, as required, when welding, cutting or heating hazardous materials or in confined spaces. Always wear approved tinted eye protection when welding or when in areas where welding is being done.

Section 4- Accident Investigation

Purpose

To ensure proper documentation of accidents, injuries, and near misses and to determine contributing factors with corrective actions, which will lead to the prevention of future incidents.

This policy is applicable to all Safety Management Group associates. An investigation shall be performed on any accident or incident involving the following:

- Recordable Occupational Injury or Illness
- Medical Expense
- Property Damage
- Near Miss

References

29 CFR 1904 – Recording and Reporting Occupational Injuries and Illnesses

Definitions

Reportable Accident - Any accident that incurs a medical or property expense.

Near Miss Incident - Occurrence that could have resulted in an OSHA Recordable Injury, or property damage.

Recordable Accident - Any occupational death, or nonfatal occupational illness or injury which involves one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment (other than first aid).

Lost Time - Amount of time the associate is unable to perform his/her normal job duties over a normal work shift, even through the associate may be able to continue working; but not including the initial day of injury or onset of illness, and not including days the associate would not have worked even though able to work (holidays, vacations, etc.).

Reporting Procedures

- Associates must notify their manager as soon as possible
- Injuries and Illnesses where one employee is hospitalized, an amputation or loss of an eye must be reported to OSHA within 24 hours of the incident. When a fatality occurs, OSHA requires notification within 8 hours. The notification shall be the safety representative responsibility. (IOSHA's phone # 317-232-0055)
- Foremen will be responsible for conducting accident investigation interviews with associates and witnesses that were involved in the incident
- The Accident Investigation forms will be used for all written reports of investigation.
- These completed forms will be submitted to the Safety Representative within 24 hours following the accident.
- All accident reports will be reviewed by the Manager, Safety Representative, and President.
- All conditions that were present during the time of the accident will be documented.
- All evidence will be collected, preserved, and secured to properly conduct the investigation.

Accident Investigation Procedures

The investigation will be made as soon as possible after an incident. The report shall be completed and submitted to the persons listed below within 24 hours after the incident occurs. The report will include the basic cause of the incident, as well as the corrective action taken to prevent a future similar incident. The Accident Investigation and Employer First Report of Injury/Illness forms will indicate exactly what caused the accident and describe the type of corrective action taken.

A copy of the investigation report is to be sent to:

- Safety Representative
- President

An Associate/Witness Accident Statement is to be completed by the injured associate and any witnesses. These forms will be submitted to their manager or safety representative within 24 hours of the accident.

After the persons listed above have reviewed the investigation report, a brief description of the incident and the corrective actions taken to avoid a similar incident will be communicated to all associates.

All persons conducting incident investigations will be properly trained in their responsibilities and investigation techniques.

Equipment to conduct the investigation will be readily available.

Section 5- Benzene Awareness

Introduction

Benzene exposure has been associated with aplastic anemia and blood cancer. The Occupational Safety and Health Administration (OSHA) has promulgated an expanded Benzene Standard (29CFR 1910.1028), which outlines the regulatory requirements for the safe handling and use of benzene.

Purpose

The intent of this Benzene Awareness Program is to protect employees against harmful over-exposures to benzene through inhalation, skin contact or eye contact. Exposure activities may include:

- Field Maintenance
- Petroleum Refining Sites
- Tank Gauging

Exposure Control

Exposure Limits - OSHA sets Permissible Exposure Limits (PEL) for many chemicals. The PEL is the allowable exposure that an employee can be exposed to over an eight-hour time weighted average. The current PEL for benzene is 1-part benzene per million parts air (ppm). Since this is an 8-hour average, short-term exposures above the PEL are permitted as long as the average exposure over an 8-hour period does not exceed the PEL.

Short Time Exposure Limit (STEL) for benzene that cannot be exceeded. The STEL is the greatest concentration of benzene in air to which exposure may occur for a fifteen-minute period. The current STEL is 5 ppm.

Protective clothing and equipment resistant to benzene must be provided to employees. Skin and eye contact can be prevented by the use of chemical protective clothing made of material impervious to benzene and the use of other personal protective equipment, such as gloves, goggles and face shields, as appropriate to the operation.

Communication of Hazards

Safety Management Group will provide training for employees who are assigned to workplaces where there is a potential for exposure to benzene. This training must occur prior to or at the time of initial assignment, and whenever a new exposure to benzene is introduced into the work area. The training will be repeated annually thereafter if exposures are above the action level.

The training program will be conducted in a manner which the employee is able to understand and will include:

- Requirements of OSHA's Benzene Standard and how to access or obtain a copy of it in the workplace;
- Description of the medical surveillance program and the information contained in Appendix C of OSHA's Benzene Standard; and
- Information on the quantity, location, manner of use, release and storage of benzene and the specific operations in the workplace that could result in exposure to benzene.

The supervisor will provide all affected employees with written training materials, without cost, to the affected employees.

Characteristics of Benzene

Benzene is a chemical that is a colorless or light-yellow liquid at room temperature. It has a sweet odor and is highly flammable. Benzene is not soluble in water.

Health Effects

People who breathe in high levels of benzene may develop the following signs and symptoms within minutes to several hours:

- Drowsiness
- Dizziness
- Rapid or irregular heartbeat
- Headaches
- Tremors
- Confusion
- Unconsciousness
- Death (at very high levels)

Eating foods or drinking beverages containing high levels of benzene can cause the following symptoms within minutes to several hours:

- Vomiting
- Irritation of the stomach
- Dizziness
- Sleepiness
- Convulsions
- Rapid or irregular heartbeat
- Death (at very high levels)

Direct exposure of the eyes, skin, or lungs to benzene can cause tissue injury and irritation.

Long-term health effects of exposure to benzene

- The major effect of benzene from long-term exposure is on the blood. (Long-term exposure means exposure of a year or more.) Benzene causes harmful effects on the bone marrow and can cause a decrease in red blood cells, leading to anemia. It can also cause excessive bleeding and can affect the immune system, increasing the chance for infection.
- Some women who breathed high levels of benzene for many months had irregular menstrual periods and a decrease in the size of their ovaries. It is not known whether benzene exposure affects the developing fetus in pregnant women or fertility in men.
- Animal studies have shown low birth weights, delayed bone formation, and bone marrow damage when pregnant animals breathed benzene.
- The Department of Health and Human Services (DHHS) has determined that benzene causes cancer in humans. Long-term exposure to high levels of benzene in the air can cause leukemia, cancer of the blood-forming organs.

Medical Surveillance

Safety Management Group will institute medical surveillance program for all employees exposed to benzene at concentrations at or exceeding the action level on 30 or more days per year or exceeding the PEL or STEL for 10 or more days per year.

All medical procedures, including administration of medical disease questionnaires, will be performed by or under the supervision of a licensed physician and will be provided without cost to the employee, without loss of pay, and at a reasonable time and place.

Initial medical surveillance must occur prior to assignment to a job. Safety Management Group will provide each affected employee with a medical examination annually following the initial examination.

Recordkeeping

Safety Management Group will establish and maintain an accurate record of the following:

- Exposure measurements, which must be maintained for at least thirty years, including:
 - The dates, number, duration, and results of each of the samples taken, including a description of the procedure used to determine representative employee exposures;
 - A description of the sampling and analytical methods used;
 - A description of the type of respiratory protective devices worn, if any; and
 - The name, social security number, job classification and exposure levels of the employee monitored and all other employees whose exposure the measurement is intended to represent.
- Medical surveillance records, which will be maintained for the at least the duration of the employment plus thirty years, including:
 - The name and social security number of the employee;
 - The department's copy of the physicians written opinion on the initial, periodic and special examinations, including results of medical examinations and all tests, opinions and recommendations;
 - Any employee medical complaints related to benzene exposure;
 - A copy of the information provided to the physician; and
 - A copy of the employee's medical and work history related to exposure to benzene or any other hematologic toxins.

Employee exposure and medical records required by this policy shall be provided upon request for examination and copying, to the subject employee or former employee or to anyone having the specific written consent of the subject employee or former employee.

Safe Work Practices

Fire extinguishers must be readily available. Smoking is prohibited in areas where benzene is used or stored.

Safety Management Group will inform employees of Owners contingency plan provisions and where benzene is used in host facility.

Employees are to follow all Owners safety rules.

Plan Evaluations

The effectiveness of this plan will be evaluated periodically using the criteria listed below:

- Maintain compliance with applicable institutional, local, State and Federal regulations;
- Processes involving benzene are evaluated at least annually;

Maintain exposures below applicable limits or provide appropriate protection.

Section 6- Bloodborne Pathogens

Purpose

To reduce the risk of exposure to bloodborne pathogens by associates who perform first aid and/or CPR.

Definitions

Occupational Exposure - Reasonably anticipated skin, eye, mucous membrane, or parenteral (needle stick, puncture) contact with blood or other potentially infectious materials that may result from the performance of an associate's duties. This regulation was initially written to protect workers in the emergency response and health care profession. OSHA has found an application in the construction industry. According to OSHA those individuals assigned with the responsibility of administering first aid on the job site are occupationally exposed or have the potential of being exposed to human blood and body fluid.

Bloodborne Pathogens - Pathogenic micro-organisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Contaminated Sharps - Any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

Decontamination - The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Engineering Controls - Controls (e.g., sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident - A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an associate's duties.

Hand washing Facilities - A facility providing an adequate supply of running potable water, soap and single use towels or hot air-drying machines.

HBV - Hepatitis B virus.

HIV - Human immunodeficiency virus.

Occupational Exposure - Reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an associate's duties.

Parenteral - Piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

Personal Protective Equipment - Specialized clothing or equipment worn by an associate for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Regulated Waste - Liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state.

Compressed - Items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Source Individual - Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the associate.

Universal Precautions - An approach to infection control. All human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Procedures

It is inevitable that our associates will encounter blood or some other body fluid in the workplace. The following control measures will be utilized when body fluid is encountered on the jobsite:

- Barricade, mark, or section off any area that contains spilled blood or body fluid until it can be cleaned and decontaminated. Associates registered in First Aid/CPR should clean up the spill as soon as possible before returning to regular duties.

Only first aid/CPR-trained personnel are considered qualified to wear the appropriate personal protective equipment prior to assisting the injured party. Personal protective equipment includes:

- Disposable gloves
- Eye protection
- Body gown
- Disposable shoe covers
- One-way resuscitation device (used to restore breathing)

All of the above equipment will be considered part of the first aid kit.

All body fluids shall be considered contaminated and shall be cleaned up and disposed of properly. The following procedures will be used for cleaning and removal of body fluids:

- Personal protective equipment as described above will be worn during the operation.
- Puncture resistant containers will be used to store the contaminated material.
- Containers will be labeled as contaminated, using the Orange Biohazard symbol.
- Containers will be taken to a servicing facility such as a hospital or clinic, for proper disposal.

Safety Management Group makes available, at no cost to the first aid/CPR trained associate, a Hepatitis B Vaccination. This associate is not required to have the vaccination, but if he/she refuses the vaccination, he/she must sign the declination form. This form will be kept in the associate's personal file in the Corporate Office. The vaccination will be available at no cost to the associate at a future date if he/she decides to have it.

For the safety and well-being of our associates, Safety Management Group has made it mandatory that those associates who have been exposed to body fluids must see the Safety Management Group Doctor for a follow-up evaluation and possibly laboratory tests. Upon evaluation, the Doctor may recommend that the associate have the Hepatitis B vaccination. This recommendation will be followed, and the associate will be required to have the vaccination.

When dealing with body fluids of any kind, it should be considered contaminated. A contaminated material is hazardous and will be labeled as such, placing the Orange Biohazard symbol on the container containing fluid.

Safety Management Group will keep records on those associates who have been exposed to body fluids for duration of employment plus 30 years after employment is discontinued.

Safety Management Group will provide an exposure control plan to all employees when requested.

Safety Management Group will ensure an appropriate hand washing facilities or provide antiseptic wipes on all job sites.

All equipment that has come in contact with blood or other potentially infectious material will be cleaned after contact.

Bloodborne Pathogen training will be given to all employees that could be potentially exposed to bloodborne pathogens. Training records will be maintained for at least three years.

Section 7- Confined Space Entry

Purpose

To ensure a safe work environment when work is performed in a confined space.

Scope

This procedure applies to all Safety Management Group operations with confined spaces or when engaged in confined space entry.

Definitions

Confined Space

- Is large enough and so configured that an associate can bodily enter and perform assigned work; and
- Has limited or restricted means for entry or exit
- The space is not designed for continuous associate occupancy

Controlling Contractor - The employer that has overall responsibility for construction at the worksite.

Entry Employer - Means any employer who decides that an employee it directs will enter a permit space.

Hazardous Atmosphere

- An atmosphere that may expose associates to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from permit space), injury, or acute illness from one or more of the following causes:
 - Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
 - Airborne combustible dust at a concentration that meets or exceeds its LFL;
 - Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
 - Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, *Occupational Health and Environmental Control*, or in Subpart Z, *Toxic and Hazardous Substances*, of this part and which could result in associate exposure in excess of its dose or permissible exposure limit;
 - Any other atmospheric condition that is immediately dangerous to life or health.

Host employer - Means the employer that owns or manages the property where the construction work is taking place.

Permit-Required Confined Space

- Permit-Required Confined Space means a confined space that has one or more of the following characteristics:
 - Contains or has a potential to contain a hazardous atmosphere;
 - Contains a material that has the potential for engulfing an entrant;
 - Has an internal configuration such that an entrant could be trapped or asphyxiated by inward converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
 - Contains any other recognized serious safety or health hazard.

Non-Permit Confined Space

- (Low Hazard) A confined space that poses no actual or potential atmospheric hazards and if all hazards within the confined space are eliminated without entry into the space, the space may be classified or reclassified as a Non-Permit confined space, for as long as the non-atmospheric hazards remain limited. (Forced air ventilation does not consider elimination of a hazard).

Responsibilities

The Safety Representative shall manage the overall confined space entry program and will ensure that supervisory and worker personnel are trained and comply with policy requirements.

Attendants

- Have knowledge of all potential hazards of entry.
- Aware of possibly behavioral effects of hazard exposure.
- Stay in contact communication with entrants.
- Remains outside the permit space during entry operations, unless relieved by another attendant.
- Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders entrants to evacuate immediately under any of the following conditions:
 - Attendant detects a prohibited condition.
 - Attendant detects the behavioral effects of hazard exposure in an entrant.
 - Attendant detects a situation outside the space that could endanger the entrants.
- Summons rescue and other emergency services as needed.
- Monitor only one space at a time.
- Take appropriate actions if unauthorized persons approach or enter a permit space.
 - Warn unauthorized persons to stay away from permit space.
 - Advise unauthorized persons to exit immediately if they have entered the permit space.
 - Inform authorized entrants and entry supervisor if unauthorized persons have entered the space.
- Performs non-entry rescue as specified by the employer's rescue procedure.

Entrants

- Have knowledge of all potential hazards of entry.
- Stay in contact communication with attendants.
- Alert the attendant whenever:
 - Entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
 - Entrant detects a prohibited condition.
- Exit the space as quickly as possible whenever:
 - An order to evacuate is given by the attendant or entry supervisor.
 - Entrant recognizes any warning sign or symptom of hazardous exposure.
 - Entrant detects a prohibited condition.
 - An evacuation alarm is activated.

Entry Supervisor

- Have knowledge of all potential hazards of entry.
- Verifies full completion of permit, including atmospheric testing requirements and all other applicable procedures and equipment as specified by the permit before signing and allowing entry to begin.
- Terminates the entry and cancels the permit whenever:
 - Entry operations covered by the permit are completed.
 - A condition not allowed under the permit arises in or near the permit space.
- Verifies that rescue services are available and the means for summoning them are operable.
- Removes unauthorized individuals who enter or attempt to enter the permit space.
- Coordinates permit transfer so that entry operations remain consistent with the terms of the entry permit and that acceptable entry conditions are maintained.
- Coordinates with other employers that are working in the space to be aware of the working conditions.

Procedures

General Requirements

- Before work begins at a worksite, each employer/contractor must ensure that a competent person identifies all confined spaces in which one or more of the employees it directs may work, and identifies each space that is a permit space, through consideration and evaluation of the elements of that space, including testing as necessary.
- If the workplace contains one or more permit spaces, the employer who identifies, or who receives notice of, a permit space must:
 - Inform exposed employees by posting danger signs or by any other equally effective means, of the existence and location of, and the danger posed by, each permit space; and
 - Inform, in a timely manner and in a manner other than posting, its employees' authorized representatives and the controlling contractor of the existence and location of, and the danger posed by, each permit space.
- Danger signs are posted of the existence, location, and danger posed by permit and non-permit confined spaces.
- The company safety representative is responsible for program development, implementation, and policy revisions.
 - Types of Hazards Associated with Confined Spaces
 - Oxygen deficiency, less than 19.5%
 - Combustible/Flammable/Explosive Atmospheres
 - Toxic Gases or Vapors
 - Physical Hazards
 - Grinding
 - Agitators
 - Steam
 - Falling/Tripping
 - Other Moving Parts
 - Mulching
 - Corrosive chemicals
 - Biological

- Unknowns
- Electrical
- Wind
- Lighting
- Weather
- Insecure Footing
- Rodents/Snakes/Spiders

Confined Space Entry

- Review activity to be performed. The company safety representative shall determine entry classification of permit or non-permit required.
- Complete Safety Management Group Confined Space Entry Permit
 - Prepare Space Entry
 - Notify the department likely to be affected by service interruption.
 - Post signs, put up barriers and tape where necessary to prevent unauthorized entry.
 - Qualified personnel follow appropriate shutdown procedures.
 - Implement lockout/tagout where necessary to isolate space.
 - Empty the space if possible of hazardous materials, clean, wash and purge.
 - Ventilate if needed long enough in advance. Verify by testing.
 - Review with personnel entering the space that previous testing has been completed.
 - Attach "HOT WORK" permit, if required, to confined space entry permit.
 - Conduct atmospheric testing to determine concentration levels of all hazards identified.
 - Post confined space entry permit (if required)
- Atmosphere Testing and Monitoring Requirements
 - Initial testing of the confined space is to be conducted by a "qualified person"* only. At a minimum all confined spaces must be evaluated for:
 - Oxygen (O₂) levels must be >19.5% and <21.5%
 - Presence of Carbon Monoxide (CO) gas must be below the PEL
 - Presence of explosive gas or vapor must be less than 10% of the LEL
- Additional tests in confined spaces may be needed because of the function of the confined space. For example:
 - Chemical Hazards
 - Toxicity (Review SDS's, PEL's, TLV's and other data to evaluate exposure.)
 - Sulfur Dioxide (SO₂)
 - Hydrogen Sulfide (H₂S)
 - Hydrogen Cyanide (HCN)
 - Physical Hazards
 - Heat stress (using wet Bulb Globe thermometer)
 - Noise (using dosimeter to evaluate)
- Continuous Testing in Attended Confined Spaces
 - Where the space contains or has the potential to contain a hazardous atmosphere, continuous monitoring will be done.

- Personnel using continuous monitors will be trained on the use and limitations of the monitor. This training is part of the annual confined space training program.
- Combustible Gases and Dusts Testing
 - All confined spaces shall be tested for explosive gases and vapors prior to entry, no "HOT WORK" shall be permitted if atmospheric readings are above 10% of the lower explosion limit (LEL). Continuous reading monitors for explosive ranges shall be used on the jobsite in which "HOT WORK" is being conducted in attended confined spaces.
 - Before "HOT WORK" is conducted in confined spaces which contain combustible dusts, they shall be adequately cleaned by means of washing or "wetting down", or vacuuming with properly grounded equipment. At NO time is compressed air to be used for cleaning of combustible dusts.

This program will be reviewed at least annually and revisions will be made when necessary.

Training Requirements

Initial and refresher (when duties change, hazards in space change or whenever evaluation determines inadequacies in associate's knowledge) training to provide affected associates with the understanding, skills and knowledge necessary to perform the job safely and the proper PPE, use of tripod and other necessary equipment. Employer certification of training must include associate's name, signature or initials of trainer and date of training.

Rescue Services

Employee retrieval systems will be used whenever possible. The other end of the retrieval line must be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device must be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

- A rescue team or service will be selected to perform rescue prior to starting the project. The rescue team will:
 - 1) Have the capability to reach the victim(s) within a time frame that is appropriate for the permit space hazard(s) identified;
 - 2) Be equipped for, and proficient in, performing the needed rescue services;
 - 3) Notify the employer immediately in the event that the rescue service becomes unavailable;
 - 4) Inform each rescue team or service of the hazards they may confront when called on to perform rescue at the site; and
 - 5) Have access to all permit spaces from which rescue may be necessary so that the rescue team or service can develop appropriate rescue plans and practice rescue operations.

Section 8- Cyber Security

Purpose

This Cyber Security Plan provides the framework and guidance for managing and responding to Information Security Incidents. The purpose is to help business-critical services:

- Quickly and efficiently recover from incidents,
- Respond in a systematic and complete manner,
- Prevent or minimize disruption of critical information systems,
- Minimize loss or theft of sensitive or critical information, and
- Minimize harm to individuals affected by the incident and the organization.

Scope

This plan applies to all employees, contractors, vendors, and others who process, store, transmit, or have access to sensitive information including personal information (PI) or other confidential information`. This policy applies to both electronic and non-electronic information.

Procedure

Employees will learn steps to mitigate attacks on themselves and Safety Management Group. The content of the program includes:

- Malicious code (e.g. viruses, worms, Trojans, bots)
- Unauthorized access to information assets (e.g. computer or network)
- Network attacks (e.g. denial of service)
- Probe, scan, unauthorized electronic monitoring (e.g. sniffers)
- Theft of source or programming code
- A violation of privacy or data security policies or procedures
- Abuse/misuse (e.g. inappropriate usage) of information assets
- Misuse or accidental disclosure of personal information (e.g. posting on a website or public forum, email sent to wrong person or without encryption)
- Compromised system or user credentials
- Social engineering (e.g. phishing)
- Establishment of an unauthorized account for a computer or application
- Loss or theft of a PC, laptop, cell phone, or other electronic storage device
- Lost, stolen, or missing hard-copy documents or media

Employees are required to use usernames that are unique to themselves and must also have passwords that must contain at a minimum; one lowercase letter, one uppercase letter, one number, and must also be at least 6 characters long.

Documenting the Incident

Thorough documentation of the incident and investigation is critical especially if regulatory investigations or lawsuits arise from the incident. The employee who discovers the incident should document all known facts including:

- Date and time of incident detection and notification
- Incident detector's contact information
- Location of the incident
- Systems, applications, services, data and networks possibly at risk
- Type of incident detected
- General description of incident

- Names and contact information of others involved
- Any actions taken since incident discovery
- Any additional relevant information known at the time

Training

Employees of Safety Management Group must complete Cyber Security training during New Hire Orientation. Re-Training of this program will be performed annually

Section 9- Designated Health Care Facility

Purpose

To provide prompt quality medical services and to establish procedures for returning associates with job-related injuries or illnesses to work by providing Restricted Duty job assignments.

Definition

Designated Clinic – Nearest occupational clinics to our working location have been selected by Safety Management Group to treat all non-life threatening work related injuries.

Restricted Duty - An assignment provided to an associate who, because of a job-related injury or illness, is physically or mentally unable to perform all or any part of his/her normal assignment during all or any part of the normal workday or shift.

Procedures

Accidents resulting in injuries that require emergency personnel to transport the injured associate should be transported to the nearest emergency room facility.

For injuries not requiring emergency transport, the Safety Representative after being notified of an injury, will select and contact the nearest Occupational facility for treatment of the injured associate. The selection of this facility and future designated clinics will be based on the following:

- The doctor's experience in treating occupational injuries;
- The doctor's attitude in recommending light duty work assignments and;
- The doctor's familiarity of Indiana workmen's compensation laws.

The Safety Management Group policy is to return associates to work as soon as possible after a job-related injury or illness has occurred. All possible opportunities will be considered to provide Restricted Duty assignments for these associates. Restricted Duty Assignments will also be considered for associates injured off the job whenever possible.

By returning to work, associates are able to maintain their normal income while recovering from an injury or illness. Returning associates to work as soon as possible also benefits Safety Management Group by keeping claims to a minimum and maintaining productivity by keeping the qualified individual on the job rather than retraining a replacement worker.

When an injured associate returns to work, all physical and mental limitations must be evaluated so that additional injury or aggravation does not occur. The safety of other associates working with the injured individual must also be considered.

Evaluation

All injuries and illnesses will be evaluated on case-by-case basis by the physician, with consultation by company representatives regarding light duty work that is available for the injured associate. The evaluation should consider the following items:

- Can the associate perform a useful task for Safety Management Group?
- Does the assignment risk further injury or aggravation?
- Will the assignment compromise the safety of other associates?

Injured associates may return to work on Restricted Duty under the following circumstances:

- The associate's attending physician has determined the physical restrictions.
- Safety Management Group has a task that can be assigned that meets the restrictions.
- Safety Management Group Foremen is informed of the restrictions.
- No associate on Restricted Duty will be allowed to work more than (40) hours per week.

The associate must receive full medical release from a physician before resuming normal work activities.

Section 10- Disciplinary Procedures

Purpose

To provide a fair and consistent method for ensuring compliance with rules concerning operation, personnel, safety, security, and other regulations adopted by Safety Management Group. This Disciplinary Policy will apply to all associates of Safety Management Group.

Account managers are authorized to enforce or administer the disciplinary policy. The Safety Representative will make the final determination of the degree of disciplinary action taken for violations of a rule or regulation.

Definitions

Safety Violation - Any unsafe act or condition that could reasonably lead to an accident, injury or property loss; and that could have reasonably been anticipated.

Procedures

To ensure orderly operations and provide the best possible work environment, Safety Management Group expects associates to follow rules of conduct that will protect the interests and safety of all associates and the organization.

It is not possible to list all the forms of behavior that are considered unacceptable in the workplace. The following are examples of infractions that may result in corrective action, up to and including termination of employment:

- Theft or inappropriate removal or possession of property
- Working under the influence of alcohol or drugs
- Possession, distribution, sale, transfer, or use of alcohol or drugs in the workplace, while on duty, or while operating employer-owned vehicles or equipment
- Fighting or threatening violence in the workplace
- Insubordination or other disrespectful conduct
- Violation of safety or health rules
- Smoking in prohibited areas
- Excessive absenteeism or any absence without notice
- Tardiness
- Unauthorized absence from workstation during the workday

Employment with Safety Management Group is at the mutual consent of Safety Management Group and the associate, and either party may terminate that relationship at any time, with or without cause, and with or without advance notice.

Determine the Degree of Discipline as follows:

First Degree - Non-Serious Violation. Penalty: Verbal Warning. The Manager should log this warning and advise the Safety Representative of its occurrence. The record of this occurrence will be placed in the violator's personnel file.

Second Degree - Serious Violation. Penalty: Written Warning. The Manager and the violator will sign the written warning, and it will be placed in the violator's personnel file. (See Individual Disciplinary Notice D-5)

Third Degree - Intentional Violation. Penalty: Up to three (3) days of suspension with written notice for an associate, and suspension from work. The Manager and the violator will sign the notice, and it will be placed in the violator's personnel file.

In addition to the above procedure, Safety Management Group reserves the right to immediately terminate a person for violating safety and health policies.

Job site inspections will be conducting periodically to ensure compliance with safety rules and policies.

Section 11- Dropped Object Prevention

Purpose

This program provides requirements to protect Safety Management Group personnel against the hazards of falling objects from elevated areas.

References

- 29 CFR 1910.23
- 29 CFR 1926.759
- 29 CFR 1926.100
- 29 CFR 1926.951
- 29 CFR 1926.451
- 29 CFR 1926.501(c)

Definitions

Floor hole - An opening measuring less than 12 inches but more than 1 inch in its least dimension, in any floor, platform, pavement, or yard, through which materials but not persons may fall; such as a belt hole, pipe opening, or slot opening.

Exclusion Zone - The control zone designated to exclude all unauthorized personnel.

Barricade (Hard and Soft) - A physical method used to prevent access to the exclusion zone.

Floor opening - An opening measuring 12 inches or more in its least dimension, in any floor, platform, pavement, or yard through which persons may fall; such as a hatchway, stair or ladder opening, pit, or large manhole. Floor openings occupied by elevators, dumb waiters, conveyors, machinery, or containers are excluded.

Debris netting - Fine mesh netting designed to be installed horizontally and vertically to prevent objects from falling to lower levels.

Platform - A working space for persons, elevated above the surrounding floor or ground; such as a balcony or platform for the operation of machinery and equipment.

Stair railing - A vertical barrier erected along exposed sides of a stairway to prevent falls of persons.

Toe board - A horizontal barrier at least 4" high at floor level erected along exposed edges of a floor opening, wall opening, scaffolding platform, runway, or ramp to prevent falls of materials.

Hole - means a gap or void 2 inches or more in its least dimension, in a floor, roof, or other walking/working surface.

Leading edge - means the edge of a floor roof, or formwork for a floor or other walking/working surface which changes location as additional floor, roof, decking, or formwork sections are placed, formed or constructed. A leading edge is considered to be an unprotected side and edge during periods when it is not actively and continuously under construction.

Opening - means a gap or void 30 inches or more high and 18 inches or more wide, in a wall or partition, through which employees can fall to a lower level.

Tool Tether - A restraint for holding a tool in place, allowing a short distance in which it can fall.

Walking/Working surface - means any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

Responsibilities

Foreman

- Shall ensure that Safety Management Group's dropped object program is planned into work activities.
- Ensure employees have training and resources necessary to implement dropped object program requirements.
- Ensure that objects are appropriately secured to prevent them from dropping.
- Ensure that work areas are adequately protected to prevent injury in the event of a dropped object.
- Ensure that safe work activities are implemented to eliminate/minimize potential for dropped objects.

Project Managers

- Project managers shall ensure that dropped object protection is planned into contracted work activities
- Ensure contractors are aware of and have the training and resources needed to implement dropped object program requirements.

Employees

- Employees shall comply with the dropped object prevention requirements of this program.
- Provide management/supervision with information regarding unsafe conditions in relation to dropped objects.
- Review contractor dropped object program for compliance with this procedure.

Safety Officer

- Monitor, evaluate and further refine the dropped object program based on the needs of the company and OSHA guidelines.
- Provide management/supervision with information regarding unsafe conditions in relation to dropped objects.
- Provide technical support, analysis, and ongoing review of dropped object guidelines.

Procedures

General

- All employees potentially exposed to dropped objects must be trained on this program in addition to dropped object prevention measures.
- When employees are exposed to falling objects, each employee shall wear a hard hat and safety glasses.
- Prior to beginning each job, as part of the job hazard analysis (JHA) and Pre-Job Brief (PJB) an assessment must be performed to determine if the potential for dropped objects exists and if protective measures are needed. Employees and contractors must be informed of dropped object potential hazards, as well as preventive and protective measures.
- Safety Management Group shall address equipment/materials/tools security and dropped-prevention system and control requirements in the site specific health and safety plan.

Dropped Object Prevention Requirements

- Dropped object prevention measures shall be utilized for employee protection where the potential for dropped objects exists. The following requirements apply:
 - Tool tethers shall be utilized on all tools where the potential for dropped tools exists from elevated work platforms higher than 6 feet, or when there are individuals working below the immediate work area.
 - Tools weighing more than 5 pounds shall not be tethered to the body.
 - Tools weighing more than 5 pounds shall be tethered to a member capable of supporting the weight of the tool.
 - Tool tethers shall not be utilized around rotating equipment.
 - Tool tethers shall be a manufactured product designed for its intended use and constructed of non-conductive materials if working around energized equipment. **The use of rope is not an authorized or acceptable means of tethering tools.**
 - Debris netting (fine mesh), or other suitable material, shall be utilized under the work area when assembling and disassembling equipment on elevated work areas where the potential for nuts, bolts, and other miscellaneous parts are at risk of falling.
 - Where the potential for dropped objects exists on elevated work platforms such as scaffolding, aerial lifts, permanent plant elevations, etc., fine mesh netting or plywood shall be installed from the toe-board to the top rail of the guardrails of the work platform to prevent objects from inadvertently falling from the platform.

Material Transport

- The following measures shall be utilized when transporting material:
 - When climbing ladders, materials and tools shall be transported via rope and/or tool bags.
 - Tools that could potentially fall from the tool bag during transport shall be tethered to the bag.
 - Tool belts with tethered tools may be utilized while climbing ladders.
 - When tool bags are not feasible, rope should be utilized to hoist materials to the work area.
 - When it is necessary to carry larger materials, such as boards or piping, do not carry any more material than you can control in areas where there is a potential for materials to fall to a lower level.

- When using a cart or dolly to transport materials, do not over load and secure materials prior to movement.

Dropped Object Protection Measures

- When employees are exposed to falling objects, each employee shall wear a hard hat and safety glasses.
- Install barricading: Red Danger Barricade Tape with appropriate signage shall be established in areas where objects could fall from elevated work areas. The barricade shall prohibit employees from entering the affected area and shall be large enough to confine dropped objects.
- In the event that an exclusion zone cannot be established with red barricade, or is physically not feasible, then netting or other secondary containment measures shall be utilized locally at the work location to prevent the object from falling to the next level.
- Additionally, where objects are stored on platforms and scaffolds, the following measures shall be implemented to prevent objects from falling from the platform.
 - Erect toe boards, screens, or guardrail systems to prevent objects from falling from higher levels; or,
 - Erect a canopy structure and keep potential falling objects far enough from the edge of the higher level so that those objects would not go over the edge if they were accidentally displaced; or,
 - Barricade the area to which objects could fall, prohibit employees from entering the barricaded area, and keep objects that may fall far enough away from the edge of a higher level so that those objects would not go over the edge if they were accidentally displaced
- Falling object protection shall comply with the following provisions:
 - Toe boards, when used as falling object protection, shall be erected along the edge of the overhead walking/working surface for a distance sufficient to protect employees below.
 - Toe boards shall be capable of withstanding, without failure, a force of at least 50 pounds applied in any downward or outward direction at any point along the toeboard.
 - Toe boards shall be a minimum of 4 in vertical height from their top edge to the level of the walking/working surface. They shall have not more than ¼ inch clearance above the walking/working surface. They shall be solid or have openings not over 1 inch in greatest dimension.
 - Where tools, equipment, or materials are piled higher than the top edge of a toeboard, paneling or screening shall be erected from the walking/working surface or toeboard to the top of a guardrail system's top rail or midrail, for a distance sufficient to protect employees below.
 - Guardrail systems, when used as falling object protection, shall have all openings small enough to prevent passage of potential falling objects.
 - Debris netting shall be installed on guardrail systems where work is being placed. Debris netting shall have openings no greater than ½" to prevent objects from passing through.
 - Debris netting utilized for below work protection, shall have openings small enough to prevent passage of potential falling objects

Training

The following will be considered when training.

- Individual roles and responsibilities needed to implement the program (e.g., coordinators, monitors, etc.).
- Tasks that require training.
- Resources needed to conduct the training
- Most effective means to present training

Section 12- Electrical

Purpose

To protect all employees from electrical hazards and/or working on or near exposed energized parts.

Scope

This section applies to all Safety Management Group operations including shops, offices, and jobsites.

Definitions

Grounded - Connected to earth or to some conducting body that serves in place of the earth.

Ground-Fault Circuit Interrupter - A device for the protection of personnel that functions to de-energize a circuit or portion thereof within an established period of time when a current to ground exceeds some predetermined value that is less than that required to operate the overcurrent protective device of the supply circuit.

Guarded - Covered, shielded, fenced, enclosed, or otherwise protected by means of suitable covers, casings, barriers, rails, screens, mats, or platforms to remove the likelihood of approach to a point of danger or contact by persons or objects.

Qualified Person - A recognized degree, certificate, or professional standing, or extensive knowledge, training, and experience enabling successful demonstration of ability to solve or resolve problems relating to the subject matter, the work, or the project.

Responsibilities

The Safety Representative will evaluate field operations for compliance with safe work practices associated with electrical hazards.

Project Managers will evaluate the potential for electrical hazards at each jobsite and ensure that field personnel follow existing safe work procedures.

Procedures

All unqualified employees that face the risk of electric shock will be trained and familiar with electrically related safety practices. All employees will be trained in safe work practices and safe distances pertaining to their job function. Safe work practices will be employed to prevent electrical shock or other injuries.

All electrical equipment shall be readily accessible and kept free of any obstructions for ready and safe operations and maintenance.

Protective shields, barriers or insulating material designed for the voltage level to be encountered shall be provided and employees shall be trained on the proper use of the equipment.

Safety Management Group will utilize Ground Fault Circuit Interrupters (GFCI) to protect our employees on all construction sites.

All electrical equipment shall be treated as energized until it has been tested or otherwise proven to be de-energized.

Suitable temporary barriers or barricades will be put in place when access to open energized equipment is not under control of the authorized person.

When working under overhead power lines a clearance distance must be maintained or the lines need to be de-energized and grounded before work can begin.

When an unqualified person is working on an elevated platform around overhead power lines the person must stay a minimum of 10 feet from the line.

When a qualified person is working near overhead lines must maintain an approach distance found in 1910.333 Table S5.

All vehicles that could come in contact with any overhead power line must stay at least 10 feet from the line.

Lockout/Tagout will be used when feasible.

Portable ladders will have non-conductive side rails.

▪ ***Working on Energized Equipment***

- Employees will not enter a space with exposed energized parts without the proper illumination to allow the employee to work safely.
- Work shall not be done on any live energized equipment or parts of equipment until the following conditions are met.
 - Supervision has determined that the work has to be done while the equipment or system is energized;
 - All personnel involved with the work will be instructed on the proper work techniques and the hazards associated with working with energized parts;
 - Proper personal protection equipment will be provided and;
 - When working on live line tools a minimum safe approach limit shall be maintained in accordance with CCR 2940.2.
- All workers that work on or near live electrical parts will wear the proper fire retardant clothing.
- Only qualified workers are allowed to work on parts that are energized.
- After work on energized equipment is completed the authorized person is responsible for the following.
 - Removing all temporary personnel protective equipment and;
 - Reinstalling all permanent barriers or covers.

▪ ***Ground Fault Circuit Interrupters***

- Temporary wiring on a construction job will be guarded by the use of Ground Fault Circuit Interrupters (GFCI) to protect Safety Management Group employees. This requirement is in addition to any other requirements for equipment grounding conductors.
- All 120 volt, single-phase, 15 and 20 ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure, and which are in use by employees, should, under ideal conditions, have approved Ground Fault Circuit Interrupters to provide protection for those employees.

- Receptacles on a two-wire, single-phase portable or vehicle mounted generator rated not more than 5kW, where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces, need not be protected with GFCI.
 - The testing of company owned or controlled GFCI's should be documented. The test results should be kept as part of the job file. Any GFCI which fails to properly function will be immediately taken out of service.
- **Reporting**
 - Any electrical equipment found to be unsafe will be reported, tagged "DO NOT USE", and turned in for repair or replacement.
 - *Reporting* and alerting co-workers will prevent possible electrical contact. Notify jobsite supervision of all identified electrical hazards.
- **Test Equipment**
 - Only qualified persons will use test equipment and will verify that the hazard has been de-energized. If the circuit to be tested is over 600 volts, nominal, the test equipment will be checked for proper operation.
- **Warning Signs**
 - Warning signs are posted where employees may be exposed to high voltage electrical hazards. Never remove or damage this signage. When guarding, isolating, insulating, or grounding protective measures have been taken, they will not be removed by "unqualified employees".
 - Warning signs shall be in plain view and legible at 12 feet of an operator and driver on a crane, derrick, power shovel, driller rig, or other such equipment.
 - Warning sign shall read: "Unlawful To Operate This Equipment Within 10 Feet Of High-Voltage Lines of 50,000 Volts Or Less."
- **Power Tools**
 - All electric power tools must be grounded. Electric power tools will be equipped with a proper ground plug (three-prong) or be of double insulation construction.
 - Electrical supply cords are never used to carry electrical power tools. The tool must be carried by its proper handle.
 - Power hand tools will be carefully inspected before use. All blades, chucks, tool assembly, guards and electrical cords must be checked.
- **Housekeeping**
 - Housekeeping duties that require an employee to perform duties near electrical hazards will not use electrically conductive cleaning materials (steel wool, metalized cloth, and silicon carbide as well as any conductive liquid solutions). Pay close attention to materials used to ensure they won't contribute to a potential explosion.
- **Conductive Apparel**
 - All employees will take special care in the use of conductive apparel (such as watch bands, bracelets, rings, key chains, or metal headgear and glasses).
 - Conductive clothing will not be worn unless covered by the proper insulating material.

- ***Connecting/Starting/Energizing Electrical Equipment***
 - At no time will any employee connect, start, or energize electrical equipment while standing in water.

- ***Personal Protection Equipment***
 - Safety Management Group will provide personal protection equipment to safeguard "qualified personnel" where potential electrical hazards are present.
 - Employees will wear eye and face protective equipment where necessary to protect them from electric arcs or flashes or from flying objects.
 - All insulated personal protection equipment shall be visually inspected and electrically re-tested periodically at prescribed intervals or whenever necessary.
 - The date of the test or date of next test shall be marked on the equipment, indicating compliance.

Training Requirements

Electrical hazards (except lockout/tagout) will be addressed in Safety Management Group's Toolbox Talks, safety newsletters and daily work instructions (at a minimum).

Section 13- Emergency Action Plan

Purpose

To ensure the safety and well being of all employees in the event of a natural or man-made emergency or disaster.

References

1926.35 – Employee Emergency Plans and Fire Prevention Plans

Definitions

Emergency - Any serious, unexpected situation or occurrence that demands immediate action in order to protect the life of an employee, falls under scrutiny by the government or media, jeopardizes our public image, or threatens our financial or legal condition. Emergencies covered under this plan include:

- Major accidents
- Employee deaths from accidents
- Serious injuries
- Natural disasters, such as tornadoes, floods, earthquakes, etc.
- Man-made disasters, such as fires, explosions, workplace violence, chemical spills, toxic gas releases, etc.

Emergency Response Plan (ERP) - Written and posted documents as described on the Emergency Response Plan Checklist

Procedures

EAP procedures and equipment are developed prior to the start of a project.

An Emergency Action Plan will be made available to all employees for review when requested.

Emergency agencies will be contacted via 911.

Complete the Emergency Response Plan Checklist as needed.

A distinct signal and alarm system will be established to inform employees of an emergency taking place. (i.e. pulsating air horn blast for fire and continuous air horn blast for severe weather)

Who to Call

All employees of Safety Management Group must know exactly who to call in the event of an emergency. The ERP will include a list of the following:

- Designated, On-site Leader of the Emergency
- Safety Representative
- President
- All Local Emergency Response Teams

Site Access

The plan will include a means of access and exit for the emergency agencies. The following items must be made known to all emergency teams:

- Map of the site showing path to be taken through the jobsite.

- A means to ensure the emergency team stays on this path. A suggestion would be to assign a number of people to stand at intervals, holding up a flag, to identify the path to be taken.
- Who the lead person(s) is (are) on-site.
- What the means of communication will be.

Site Evacuation

The plan will include an evacuation procedure (if the existing building does not already have one posted) including the following:

- Illustrated evacuation route, floor plans or workplace maps clearly showing the emergency escape route, along with safe refuge areas.
- A means of communicating the order.
- A means of accounting for personnel.

Evacuating Employees:

- Employees are to proceed to the emergency assembly area using the safest and fastest evacuation routes.
- Employees are to meet in designated area according to the type of emergency.
- Employees **ARE NOT** to return to the building or the area of the emergency.

Office employees are required to follow the detailed EAP procedures for the office.

Responsibilities

The Safety Representative, with input from the Safety Committee, is responsible for the development, implementation, and review of the Emergency Response Plan Policy.

- Project Managers, and Safety Representative share the responsibilities in the development of the jobsite Emergency Response Plan, using this policy as a general guideline. These responsibilities include the following:
 - Completing the ERP prior to the start of the project.
 - Reviewing the job-specific plan with all jobsite employees, subcontractors, and client/ customer representatives.
 - Taking appropriate action to minimize hazardous situations and exposures to Safety Management Group employees and subcontracted personnel.
 - Ensuring that outside emergency services (medical aid and local fire departments are called when necessary).
 - Posting the ERP where all employees, suppliers, and subcontractors can see and read its provisions.
 - Updating the ERP as required during the course of the project.
 - Review the ERP with all employees.
- All subcontractors will comply with Safety Management Group provisions of the jobsite Emergency Response Plan.

Section 14- Environmental Policy

Purpose

To define environmental compliance requirements for subcontractor activities.

Scope

To designate responsibility and authority for our employees while on our jobsites and to meet owner requirements.

To meet environmental compliance regulations for the following aspects.

- Hazardous Chemical Handling
- Storm Water Quality – Construction
- Spill Control and Clean-Up
- General Waste Management

Responsibilities

The Environmental Coordinator is responsible for providing guidance to the Project Manager to comply with the environmental requirements listed above.

The Safety Officer has been designated our company's Environmental Coordinator.

Hazardous Chemical Handling

In order to prevent incidental spills and provide safe methods of hazardous chemical handling, the following best management practices must be implemented.

- **Container Management**
All hazardous chemical containers must be in good condition and compatible with the materials stored within.
 - All hazard chemical containers must be accessible and spacing between containers must provide sufficient access to perform periodic inspections and respond to releases.
 - Empty hazard chemical containers must have all markers and labels removed and the container marked with the word "EMPTY."
 - Any spills on the exterior of the container must be cleaned immediately.
 - Flammable chemicals stored or dispensed from drums or totes must be grounded to prevent static spark.
 - Do not overfill waste drums. A minimum of 4" of headspace must remain to allow for expansion.
- **Housekeeping**
 - All hazardous chemicals must be stored inside buildings or under cover.
 - Store hazardous chemicals not used daily in cabinets or in designated areas.
 - All chemicals that are transferred from larger to smaller containers must be transferred by use of a funnel or spigot.
 - All hazardous chemical containers must be closed while not in use.
 - Use drip pans or other collection devices to contain drips or leaks from dispensing containers or equipment.
 - Implement preventative maintenance activities to reduce the potential for release from equipment.
 - Immediately clean up and properly manage all spills or leaks.

- Periodically inspect equipment and hazardous chemical storage or waste collection areas.
- Keep all work areas and hazardous chemical storage areas clean.
- Secondary Containment
 - Store all bulk chemicals (≥ 55 gallons) within appropriate secondary containment or any sized chemical if there is a potential for release to the environment.
 - Secondary containment should be checked periodically, and any spills identified in secondary containment must be immediately cleaned up.
- Labeling
 - Ensure all hazard chemicals, including chemical wastes, are properly labeled in accordance with all federal, state and local regulations.
 - Ensure that hazard chemicals transferred to small containers are labeled with the chemicals name and applicable hazard(s).
- Knowledge of Prohibited Discharges to Sewers
 - The National Prohibited Discharge Standards forbid certain types of discharges by any sewage system user (40 CFR 403).
 - Pollutants which create a fire or explosion hazard in the public owned treatment works (POTW), including, but not limited to, waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;
 - Pollutants which will cause corrosive structural damage to the POTW, but in no case Discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such Discharges;
 - Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference;
 - Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a Discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW.
 - Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40 °C (104 °F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits.
 - Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
 - Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
 - Any trucked or hauled pollutants, except at discharge points designated by the POTW.
 - General prohibitions forbid pollutants to be discharged into the sewage system if they pass through the POTW untreated and cause the POTW to violate its NPDES permit, or if they interfere with POTW operations (including sludge disposal).
- Notification of Spill or Release
 - If a hazardous chemical spill has been released to the soil, surface water, drains/sewers, or air, the notification procedure below must be implemented.

- Some spills may require reporting to an external agency (e.g., USEPA or IDEM). It is the responsibility of the Environmental Coordinator to communicate with external agencies.
- There are both Federal and State requirements for reporting spills of oil.
- The Federal reportable quantity for a spill of oil is when the release:
 - Violates state water quality standards, or
 - Causes a sheen upon the surface of navigable waters (see note below for definition of “navigable waters”), or
 - Causes a sludge or emulsion beneath the surface of navigable waters, or
 - Is more than 1,000 gallons in a single discharge to navigable waters or adjoining shorelines, or
 - Is over 42 gallons in two separate releases to navigable waters or adjoining shorelines in a 12 month period.

Using the contact information below, the Environmental Coordinator will contact the appropriate agency **as soon as possible**.

Federal Agencies			
National Response	Violates water quality standards, or Sheen on navigable waters, or Sludge or emulsion below water surface	800-424-8802 (24 hr number)	Center
USEPA Region V	Spill over 1,000 gallons, or two 42 gallons in 12 months	312-353-2318 (24 hr number)	Spills over

Note: *Navigable waters* include territorial seas, lakes, rivers, streams, ponds, mudflats, sandflats, wetlands, sloughs, and wet meadows. Waste treatment ponds and lagoons are not considered navigable waters.

The State of Indiana reportable quantity for a spill of oil is when the release:

- Damages the waters of the State so as to cause death or acute injury or illness to humans or animals, or
- Causes a sheen upon the surface of the water, or
- Exceeds 55 gallons to soil beyond the facility boundary, or
- Exceeds 1,000 gallons to soil within the facility boundary, or,
- A past release is discovered for which a response has not been done.

Using the contact information below, the Environmental Coordinator will contact the Indiana Department of Environmental Management (IDEM) **as soon as possible**.

State of Indiana Indiana Department of Environmental Management (IDEM)	888-233-7745 (24 hr number)
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For oil spills that have damaged surface waters in the State of Indiana, the Environmental Coordinator should notify downstream users within 10 miles (required per Indiana Spill Rule [327 Indiana Administrative Code 2-6.1]). By State regulation, a “downstream water user” is a public water supply, a significant water withdrawal facility, or recreational waters.

- SPCC Plan Requirements
 - To prevent any discharge of oil into or upon navigable waterways of the United States or adjoining shorelines a spill prevention control and countermeasures plan must be implemented if the following criteria are met:
 1. It must be non-transportation related such as an industrial, commercial, agricultural, or public facilities using or storing oil.
 2. It must have an aggregate aboveground storage capacity of greater than 1,320 gallons or a completely buried storage capacity greater than 42,000 gallons.
 3. There must be a reasonable expectation of a discharge into or upon navigable waterways of the United States or adjoining shorelines.

- Inspection of Oil Containers
 - Regularly scheduled inspections by qualified personnel are critical parts of discharge prevention. Their purpose is to prevent, predict, and readily detect discharges. There should be frequent (i.e. daily) and periodic (i.e. monthly) inspections conducted for all oil containers.

- Training
 - All employees will receive initial training and annually thereafter in the elements of spill prevention, chemical container labeling and emergency response plan.

- Recordkeeping
 - Records utilized to document inspection and testing will be maintained for a period of 3 years.

Storm Water Quality for Construction Activity

Construction activities (which includes clearing, grading, excavation, and other land disturbing activities) of one acre or more are required to protect public health, existing water uses, and aquatic biota from storm water discharges. If the land disturbing activity results in the disturbance of less than one acre of total land area but is part of a larger common plan of development or sale, the project is still subject to storm water permitting.

- Requirements of Construction/Land Disturbance Storm Water Permitting (327 IAC 15-5, Rule 5):

- Development of a Construction Plan which must include a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP includes:
 - A plan that outlines how erosion and sedimentation will be controlled on the project site to minimize the discharge of sediment off-site or to a water of the state. (Basic Plan Elements)
 - A plan that addresses other pollutants that may be associated with construction activity. This can include disposal of building materials, management of fueling operations, etc. (Active Construction Component)
 - The plan should also address pollutants that will be associated with the post construction land use. (Post Construction Component)

- The Construction Plan requirements can be found in [327 IAC 15-5-6.5 \[PDF\]](#). The application for a Rule 5 general permit is called a Notice of Intent or NOI. The applicant or project site owner must notify IDEM of their intent to operate their proposed construction project to comply with the Rule.

If an adverse environmental impact from a project site is evident, a Rule 5 permit or, in more significant situations, an individual storm water permit may be required. An individual storm water permit is typically required only if IDEM determines the discharge will significantly lower water quality. If an individual storm water permit is required, notice will be given to the project site owner. The Individual Storm Water Permit has its own set of application requirements. The Project Site Owner is responsible for issuing the NOI and complying with the requirements of Rule 5. The Project Site Owner is any developer or other person(s) who has financial and operational control over construction activities and project plans at a construction site, including the ability to modify those plans.

- Erosion and Sediment Control Practices
 - Establishment of vegetation or landscaping,
 - Rolled erosion control products,
 - Placement of concrete.

 - Erosion control is a set of practices that are put in place to prevent separation of the top layer of soil and keep it in place, preventing the development of sediment. Non-structural erosion control measures include:

 - Sediment control is a set of practices designed to trap any materials released through erosion and keep it from leaving the site or mixing with runoff and entering any bodies of water. Structural sediment control measures include:
 - Silt fence barriers/mulch berms
 - Desilting basin
 - Vehicle tracking pads
 - Storm drain inlet protection
 - Sediment basins/traps
 - Straw bale barrier
 - Street sweeping and vacuuming is a work practice control that may also be implemented for sediment control.

- Inspections and Maintenance of Control Practices
 - All projects will have a designated Environmental Coordinator who will be responsible for inspection and maintenance of control practices.
 - Control practices will be inspected a minimum of once a week and within 24 hours of significant storms (.5 inches/24 hour, or where run-off is generated).
 - The Erosion Prevention and Sediment Control Site Inspection Form will be completed by the Environmental Coordinator for each inspection.

- Worker Training – Sediment/Erosion Control and Storm Water Pollution Prevention Practices

Employees who have the potential to engage in activities that impact storm water quality will receive training in the following elements:

- Spill reporting procedures
- Clearly identify potential for spills or leaks in storage areas, and the drainage pathways that could be involved.

- Knowledge of warning signs in spill areas with emergency phone numbers.
 - Identity of the person(s) responsible for spill response.
 - Locations of spill clean-up equipment and the persons responsible for operating equipment if applicable.
 - Past spill events as examples of how to, or how not to handle a situation.
 - Explanation of basic clean-up procedures.
 - Proper disposal locations and methods.
 - Location of material handling areas
 - Good housekeeping procedures.
 - Keeping materials and equipment in their proper locations.
 - Reporting of litter.
- Qualified Person Training
 - A Qualified Person is defined as a person knowledgeable in the principles and practices of erosion and sediment controls, who possesses the skills to assess conditions at the construction site that could impact storm water quality; and to assess the effectiveness of any sediment and erosion control measures used to control the quality of storm water discharge from the construction activity.
- Recordkeeping
 - All records and information resulting from the monitoring activities required under this rule, including all records of analyses performed and calibration and maintenance of instrumentation, shall be retained for a minimum of three years. When the original records are kept at another location, a copy of all such records shall be kept at the facility.
 - Training documentation will be maintained at the Environmental Coordinator's office.

Spill Control and Clean-Up

This section applies to the reporting and containment of, and the response to those spills of hazardous substances, extremely hazardous substances, petroleum, and objectionable substances that are of a quantity, type, duration and in a location as to damage the waters of the state.

- Proper Chemical Containment and Storage Practices
 - The storage of hazardous chemicals will be accomplished in a manner that minimizes safety and health hazards to personnel, equipment, buildings, and the environment.
 - Hazardous chemicals should be purchased in the smallest practical amount necessary to accomplish planned work and dispensed only in the minimum amount necessary for immediate use.
 - Hazardous chemicals must be stored segregated or separated according to compatibility so that they cannot accidentally come into contact with each other to cause a reaction such as a fire, explosion, or release of toxic or flammable gases or vapors.
 - Hazardous chemicals must be segregated by physical distance or secondary containment.
 - Secondary containment must be capable of holding any spilled material until it can be cleaned up. It must be constructed of a compatible material so that it is not degraded by the spilled material.

- Every hazardous chemical must have a definite storage place and must be returned to that location after each use.
 - Flammable chemicals must not be stored near ignition sources or with combustible material (e.g. open flames, sparking electrical equipment).
 - Oxidizing agents must not be stored on or with combustible materials.
 - Pyrophoric chemicals must be stored in such a manner that they do not come in contact with air.
 - Water-reactive chemicals must be stored in such a manner that they do not come in contact with water, including moisture in air.
 - All hazardous chemicals must be stored in easily accessible areas.
 - Hazardous chemicals (including compressed gases) must not be stored on the floor where they can be kicked or in corridors or stairwells under any circumstances.
 - Hazardous chemicals must not be stored in locations where they may impact the environment if they should accidentally spill or leak (e.g. near a drain), unless secondary containment is provided.
- **Clean-up Procedures**
- All chemical spills must be addressed promptly to prevent inadvertent effects to the health and safety of employees, the general population and to prevent pollution. In order to provide prompt clean-up, employees must be trained to recognize, report and respond to spills.
- Immediately alert area occupants and supervisor, and evacuate the area, if necessary.
 - If a volatile, flammable material is spilled, immediately warn everyone, control sources of ignition and ventilate the area. Depending on the size of the spill, ventilation or air circulation equipment may need to be deactivated to prevent the dispersion of potential hazardous particulates (mist, vapor, smoke, etc.).
 - Don personal protective equipment, as appropriate to the hazards. Refer to the Material Safety Data Sheet or other references for information.
 - Spill Recognition – Once a spill has occurred, employees must determine if the spill is capable of being handled internally or if emergency external assistance is needed.
 - **Small Spills** – A spill which is up to but no greater than 1 gallon. Small spills can typically be controlled internally and usually do not require an emergency response team. Small spills can typically be controlled by returning the container in its upright position the using a neutralizer or absorbent material to soak up the chemical. Place absorbent materials as needed to direct any spills away from sewers and storm drains. A spill control box containing absorbent materials should be located in the vicinity sewer, storm drains, and waterways.
 - **Medium Spills** – A spill which is greater than 1 gallon but less than 5 gallons. A trained emergency response team typically will need to respond to a medium spill. Generally air circulation equipment needs to be deactivated for medium spills.
 - **Large Spills** – A spill which is greater than 5 gallons and/or when spilled chemical has not been contained or the flow has not been stopped. In the event a large spill occurs, a trained emergency response team and an external response team may be needed.

- All of the contaminated materials, including absorbent, clothes, soil, wood, etc. must be removed and packaged for disposal. This may require waste determination through an external party. Containers must be properly labeled and transported according to Department of Transportation (DOT) regulations by EPA permitted hazardous waste haulers to a permitted hazardous waste disposal facility. If spilled material cannot be used according to label instructions, it most likely is classified as a hazardous waste. All of the contaminated materials, including absorbent, clothes, soil, wood, etc. must be removed and packaged for hazardous waste disposal, which requires proper regulated (EPA and Department of Transportation) packaging, transportation and acceptance at a hazardous waste disposal facility.
- Notification of Reportable Spills
 - Spills that damage the waters of the state, so as to cause death or acute injury or illness to humans or animals, must be reported to IDEM at 888-233-7745.
- Training
 - To work in the cleanup, employees must be trained on the hazards of the job. This may require training in HAZWOPER or hazard waste operations and emergency response. Employees will receive general training in the recognition of spills and the notification methods required to communicate the spill.

Management of Regulated Waste

- Proper Identification of Regulated Waste Types
 - Universal waste includes batteries, fluorescent bulbs, computers/monitors, electronic devices, mercury wastes (thermostats), and non-empty aerosol cans. This type of regulated wastes must be identified and labeled as such, “Universal Waste – Battery(ies)” or “Universal Waste – Mercury Thermostats.”
 - Waste oil will be stored in tanks or containers that will be maintained in good condition and must be labeled as “Used Oil.”
 - Hazardous waste is a waste with properties that make it dangerous or potentially harmful to human health or the environment. Hazardous wastes are either categorized as listed wastes or characteristic wastes.
 - Listed waste consist of:
 - The F-list – Includes non-specific source wastes,
 - The K-list – Includes source-specific wastes,
 - The P-list and the U-list – Includes discarded commercial chemical products.
 - Characteristic waste consists of wastes that are ignitable, corrosive, reactive or toxic.
 - Before transporting hazardous waste for transportation off-site, the company (generator) must mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172;
 - Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container

of 119 gallons or less used in such transportation with the following words and information in accordance with the requirements of 49 CFR 172.304:

**HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal.
If found, contact the nearest police or public safety authority or the U.S.
Environmental Protection Agency.**

Generator's Name and Address _____.
Generator's EPA Identification Number _____.
Manifest Tracking Number _____.

- Non-hazardous wastes include municipal solid waste commonly known as trash or garbage and industrial waste. A significant amount of industrial waste is regulated with proper handling and transportation methods.
 - Wastewater/Storm Water – Construction activity may require tasks that are defined as land distributing activities. These activities may require a storm water pollution prevention plan (SWPPP). The SWPPP identifies controls necessary to manage activity that could affect storm water discharge.
 - Aerosol cans must be properly disposed of to remove potential hazardous wastes. Aerosol cans that appear to be empty may contain propellant that would make them a hazardous waste because reactivity or ignitability. Therefore, empty aerosol cans must be collected in a designated area for proper disposal.
- **Storage of Wastes in Properly Labeled Containers/Tanks – All regulated wastes must be stored in appropriate containers in designated area(s) and labeled properly. Specific storage and labeling requirements are based upon the type of wastes and the volume generated. Hazardous waste generators are categorized as: large quantity, small quantity or conditionally exempt small quantity generators.**
 - Large quantity generators (LQGs) generate 1,000 kilograms (2,200 lbs.) per month of hazardous waste, more than 1 kilogram per month of acutely hazardous waste, or more than 100 kilograms (220 lbs.) per month of acute spill residue or soil.
 - Small quantity generators (SQGs) generate more than 100 kilograms (220 lbs.), but less than 1,000 kilograms (2,200 lbs.), of hazardous waste per month.
 - Conditionally exempt small quantity generators (CESQGs) generate 100 kilograms (220 lbs.) or less per month of hazardous waste, or 1 kilogram (2.2 lbs.) or less per month of acutely hazardous waste, or less than 100 kilograms (220 lbs.) per month of acute spill residue or soil.
 - **Proper Disposal of Wastes – All wastes must be disposed of according to Federal, State and Local regulations. The Environmental Coordinator is responsible for identifying all waste types and establishing the proper method for disposal.**
 - **Proper Tracking of Waste Quantities Generated – Regulated wastes will be tracked through the waste manifest system. This system requires a set of forms to be tracked from the generator to the treatment, storage and disposal facility.**

This system documents each step of the disposal process. The Environmental Coordinator is responsible for managing the tracking of waste quantities generated.

- Training for Managing Hazardous Waste and Universal Waste – Personnel managing hazardous waste and universal waste must complete a training program of classroom instruction or on-the-job training that provides instructions to perform their duties in compliance with applicable regulations. This training program must include the following:
 - Emergency procedures, equipment and systems
 - Standard operating procedures for using, inspecting, repairing and replacing emergency and monitoring equipment
 - Use and limitations of PPE
 - Response to fires, explosions, groundwater contamination incidents and shutdown of operations

- Documentation of Inspections and Training – All projects will have a designated Environmental Coordinator who will be responsible for maintaining inspection and training records for a period of 3 years.

Section 15- Fall Protection

Purpose

To protect Safety Management Group associates and subcontractors from the hazards of falls from elevated areas.

Scope

These fall protection guidelines will also apply to floor, roof, or wall openings and has been written to protect all personnel from the possibility or danger of personnel or materials falling through these openings.

Definitions

Anchorage - Means a secure point of attachment for lifelines, lanyards or deceleration devices.

Body Harness - Means straps which may be secured about the associate in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Controlled Access Zone (CAZ) - Means an area in which certain work (i.e., overhand bricklaying) may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled.

Deceleration Device - Means any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, tearing or deforming lanyards, automatic self retracting lifelines/lanyards, etc., which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an associate during fall arrest.

Guardrail System - Means a barrier erected to prevent associates from falling lower levels.

Handrail: Single bar on brackets attached on a wall, ramp or stairway, used to prevent tripping.

Hole - Means a gap or void 2 inches (5.1cm) or more in its least dimension, in a floor, roof, or other walking/working surface.

Lanyard - Means a flexible line of rope, wire, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline, or anchorage.

Leading Edge - Means the edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an "unprotected side and edge" during periods when it is not actively and continuously under construction.

Lifeline - Means a component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

Low Slope Roof - Means a roof having a slope less than or equal to 4 in 12 (vertical to horizontal).

Lower Levels - Means those areas or surfaces to which an associate can fall. Such areas or surfaces include, but are not limited to, ground levels, floors, platforms, ramps, runways, excavations, pits, tanks, material, water, equipment, structures, or portions thereof.

Opening - Means a gap or void 30 inches (76 cm) or more high and 18 inches (48 cm) or more wide, in a wall or partition, through which associates can fall to a lower level.

Personal Fall Arrest System - Means a system used to arrest an associate in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

Rope Grab - Means a deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an associate. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.

Roof - Means the exterior surface on the top of a building. This does not include floors or formwork which, because a building has not been completed, temporarily become the top surface of a building.

Roofing Work - Means the hoisting, storage, application, and removal of roofing materials and equipment, including related insulation, sheet metal, and vapor barrier work, but not including the construction of the roof deck.

Safety Monitoring System - Means a safety system in which a competent person is responsible for recognizing and warning associates of fall hazards.

Standard Railing: Vertical barrier to protect and prevent persons from falling into, through or from wall openings, ramps, platform or other areas where a fall hazard exists.

Steep Roof - Means a roof having a slope greater than 4 in 12 (vertical to horizontal).

Toeboard - Means a low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

Unprotected Sides and Edges - Means any side or edge (except at entrances to points of access) of a walking/working surface, (i.e., floor, roof, ramp, or runway where there is no wall or guardrail system at least 39 inches [1.0 m] high.)

Walking/Working Surfaces - Means any surface, whether horizontal or vertical on which an associate walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which associates must be located in order to perform their job duties.

Warning Line System - Means a barrier erected on a roof to warn associates that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without the use of a guardrail, body belt, or safety net systems to protect associates in the area.

Work Area - Means that portion of a walking/working surface where job duties are being performed.

Responsibilities

The Safety Representative will ensure that all Project Managers are trained and educated on the company fall protection policy and procedures.

Foremen must instruct personnel in the use of fall protection equipment and procedures. Foremen will consult with Project Management and the Safety Representative to determine if the project has an adequate fall protection plan.

All associates are required to follow safe work practices related to fall protection.

Project Managers must evaluate and control the worksite hazards associated with floor, roof, and floor openings and must instruct workers to avoid exposure to the hazards and/or provide the physical means to prevent such exposures.

The employer shall provide for prompt rescue of associates in the event of a fall or shall assure that associates are able to rescue themselves.

All incidents involving falls will be investigated.

Procedures

Pre Project Planning - A systematic evaluation of the building structure, openings and skylights, and fall exposures must be made prior to construction or demolition operations. Pre project planning for safety is best performed in conjunction with the safety department, the project management team, and other appropriate experts. A written site-specific fall prevention plan may be appropriate for particularly hazardous projects. The site specific fall prevention plan will be completed by a qualified person.

- *Compliance with Fall Protection Requirements*

- Generally, fall protection for workers is required whenever there is a potential for fall exposure of six (6) feet or more. Existing regulations allow alternative systems to protect workers from fall-related accidents.
- Guardrail Systems
- Safety Net Systems
- Personal Fall Arrest Systems
- Project Managers should implement the most suitable form of fall protection systems for each project, task, and associate. Decisions and action required to implement fall protection must occur prior to operations.
- The following are examples of each of the seven (7) types of fall protection systems that must be used when workers are working at or above six (6) foot elevations:

- *Guardrail Systems*

- The top edge of the guardrail shall be 42 inches (+/-3 inches) above the walking/working level. Midrails shall be installed between the top edge of the guardrail system and the walking/working surface.

- Midrails shall be installed at a height halfway between the top edge of the guardrail system and the walking/working surface.
 - Guardrail systems shall be capable of withstanding without failure, a force of at least 200 pounds in any outward or downward direction, at any point along the top edge.
 - When the 200 pound test load is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 39 inches above the walking/working level. Guardrail system components selected and constructed will be deemed to meet this requirement.
 - Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding, without failure, a force of at least 150 pounds applied in any downward or outward direction at any point along the midrail or other member.
 - Guardrail systems shall be so surfaced as to prevent injury to an associate from punctures or lacerations, and to prevent snagging of clothing.
 - If wire rope is used for top rails, it shall be flagged at not more than 6-foot intervals with high-visibility material.
 - When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section shall be placed across the access opening between guardrail section when hoisting operations are not taking place.
 - When guardrail systems are used at holes, they shall be erected on all unprotected sides or edges of the hole.
 - When guardrail systems are used around holes used for the passage of materials, the hole shall have not more than two sides provided with removable guardrail sections to allow the passage of materials. When the hole is not in use, it shall be closed over with a cover, or a guardrail system shall be provided along all unprotected sides or edges.
 - When guardrail systems are used around holes which are used as points of access (such as ladderways), they shall be provided with a gate, or be so offset that a person cannot walk directly into the hole.
 - Guardrail systems used on ramps and runways shall be erected along each unprotected side or edge.
 - Manila, plastic or synthetic rope being used for top rails or midrails shall be inspected as frequently as necessary to ensure that it continues to meet the strength requirements of 200 pounds and 150 pounds.
- ***Personal Fall Arrest Systems***
- Personal fall arrest systems and their use shall comply with the provisions set forth below. Effective January 1, 1998, body belts are not acceptable as part of a personal fall arrest system. NOTE: The use of a body belt in a positioning device system is acceptable.
 - Connectors shall be drop forged, pressed or formed steel,

- or made of equivalent materials.
- Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.
- Dee-rings and snaphooks shall be proof-tested to a minimum tensile load of 3,600 pounds without cracking, breaking, or taking permanent deformation.
- Snaphooks shall be sized to be compatible with the member to which they are connected to prevent unintentional disengagement of the snaphook by depression of the snaphook keeper by the connected member, or shall be a locking type snaphook designed and used to prevent disengagement of the snaphook by the contact of the snaphook keeper by the connected member. Effective January 1, 1998, only locking type snaphooks shall be used.
- Unless the snaphook is a locking type and designed for the following connections, snaphooks shall not be engaged:
 - directly to webbing, rope or wire rope;
 - to each other;
 - to a dee-ring to which another snaphook or other connector is attached;
 - to a horizontal lifeline; or
 - to any object which is incompatibly shaped or dimensioned in relation to the snaphook such that unintentional disengagement could occur by the connected object being able to depress the snaphook keeper and release itself.
- On suspended scaffolds or similar work platforms with horizontal lifelines which may become vertical lifelines, the devices used to connect to a horizontal lifeline shall be capable of locking in both directions on the lifeline.
- Horizontal lifelines shall be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.
- Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds.
- When vertical lifelines are used, each associate shall be attached to a separate lifeline.
- Lifelines shall be protected against being cut or abraded.
- Self-retracting lifelines and lanyards which automatically limit free fall distance to 2 feet or less shall be capable of sustaining a minimum tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

- Self-retracting lifelines and lanyards which do not limit free fall distance to feet or less, ripstitch lanyards, and tearing and deforming lanyards shall be capable of sustaining a minimum tensile load of 5,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.
- Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body belts and body harnesses shall be made from synthetic fibers.
- Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per associate attached, or shall be designed, installed, and used as follows:
 - as part of a complete personal fall arrest system which maintains a safety factor of at least two; and
 - under the supervision of a qualified person.
- Personal fall arrest systems, when stopping a fall shall:
 - limit maximum arresting force on an associate to 900 pounds when used with a body belt;
 - limit maximum arresting force on an associate to 1,800 pounds when used with a body harness;
 - be rigged such that an associate can neither free fall more than 6 feet, nor contact any lower level;
 - bring an associate to a complete stop and limit maximum deceleration distance an associate travels to 3.5 feet; and,
 - have sufficient strength to withstand twice the potential impact energy of an associate free falling a distance of 6 feet or the free fall distance permitted by the system, whichever is less.
- The attachment point of the body belt shall be located in the center of the wearer's back. The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head.
- Body belts, harnesses, and components shall be used only for associate protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.
- Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for associate protection until inspected and determined by a competent person to be undamaged and suitable for reuse.
- Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.
- Personal fall arrest systems shall not be attached to guardrail systems, nor shall they be attached to hoists.

- When a personal fall arrest system is used at hoist areas, it shall be rigged to allow the movement of the associate only as far as the edge of the walking/working surface.
- **Warning Line Systems**
 - The warning line shall be erected around all sides of the roof work area.
 - When mechanical equipment is not being used, the warning line shall be erected not less than 6 feet from the roof edge.
 - When mechanical equipment is being used, the warning line shall be erected not less than 6 feet from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet from the roof edge which is perpendicular to the direction of mechanical equipment operation.
 - Points of access, materials handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path formed by two warning lines.
 - When the path to a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, shall be placed across the path at the point where the path intersects the warning line erected around the work area, or the path shall be offset such that a person cannot walk directly into the work area.
 - Warning lines shall consist of ropes, wires, or chains, and supporting stanchions erected as follows:
 - The rope, wire, or chain shall be flagged at not more than 6-foot intervals with high-visibility material;
 - The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches from the walking/working surface and its highest point is no more than 39 inches from the walking/working surface;
 - After being erected, with the rope, wire, or chain attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;
 - The rope, wire, or chain shall have a minimum tensile strength of 500 pounds and after being attached to the stanchions, shall be capable of supporting, without breaking, the loads applied to the stanchions.
 - The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.

- Mechanical equipment on roofs shall be used or stored only in areas where associates are protected by a warning line system, guardrail system, or personal fall arrest system.
- **Controlled Access Zones**
 - When used to control access to areas where leading edge and other operations are taking place the controlled access zone shall be defined by a control line or by any other means that restricts access.
 - When control lines are used, they shall be erected not less than 6 feet nor more than 25 feet from the unprotected or leading edge, except when erecting precast concrete members.
 - When erecting precast concrete members, the control line shall be erected not less than 6 feet nor more than 60 feet or half the length of the member being erected, whichever is less, from the leading edge.
 - The control line shall extend along the entire length of the unprotected or leading edge and shall be approximately parallel to the unprotected or leading edge.
 - When used to control access to areas where overhand bricklaying and related work are taking place:
 - The controlled access zone shall be defined by a control line erected not less than 10 feet (3.1 m) nor more than 15 feet from the working edge.
 - The control line shall extend for a distance sufficient for the controlled access zone to enclose all associates performing overhand bricklaying the related work at the working edge and shall be approximately parallel to the working edge.
 - Additional control lines shall be erected at each end to enclose the controlled access zone.
 - Only associates engaged in overhand bricklaying or related work shall be permitted in the controlled access zone.
 - Control lines shall consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions as follows:
 - Each line shall be flagged or otherwise clearly marked at not more than 6-foot (1.8 m) intervals with high-visibility material.
 - Each line shall be rigged and supported in such a way that its lowest point (including sag) is not less than 39 inches from the walking/working surface and its highest point is not more than 45 inches (50 inches when overhand bricklaying operations are being performed) from the walking/working surface.
 - Each line shall have a minimum breaking strength of 200 pounds.

- On floors and roofs where guardrail systems are in place, but need to be removed to allow leading edge work to take place, only that portion of the guardrail necessary to accomplish that day's work shall be removed.
- **Safety Monitoring Systems**
 - The employer shall designate a competent person to monitor the safety of other associates and the employer shall ensure that the safety monitor complies with the following requirements:
 - The safety monitor shall be competent to recognize fall hazards;
 - The safety monitor shall warn the associate when it appears that the associate is unaware of a fall hazard or is acting in an unsafe manner;
 - The safety monitor shall be on the same walking/working surface and within visual sighting distance of the associate being monitored;
 - The safety monitor shall be close enough to communicate orally with the associate; and
 - The safety monitor shall not have other responsibilities which could take the monitor's attention from the monitoring function.
 - No associate, other than an associate engaged in roofing work (on low-sloped roofs) or an associate covered by a fall protection plan, shall be allowed in an area where an associate is being protected by a safety monitoring system.
 - Each associate working in a controlled access zone shall be directed to comply promptly with fall hazard warnings from safety monitors.
- **Covers**
 - Covers located in roadways and vehicular aisles shall be capable of supporting, without failure, at least twice the maximum axle load of the largest vehicle expected to cross over the cover.
 - All other covers shall be capable of supporting, without failure, at least twice the weight of associates, equipment, and materials that may be imposed on the cover at any one time.
 - All covers shall be secured when installed to prevent accidental displacement by the wind, equipment, or associates.
 - All covers shall be color coded or they shall be marked with the word "HOLE" or "COVER" to provide warning of the hazard. NOTE: This provision does not apply to cast iron manhole covers or steel grates used on streets or roadways.

- **Floor Openings and Floor Holes**
 - Floor openings shall be guarded by using a standard railing and toeboard.
 - All floor holes shall be covered with material that is capable of supporting the maximum weight load intended.
 - All Ladderways Floor Openings or Platforms
 - Ladderways shall be guarded with standard railings and toeboards.
 - Platforms shall be guarded with standard railings and toeboards.
 - Hatchways and Chute Floor Opening
 - Hatchways shall be guarded with hinged cover and standard railings with only one exposed side. The hinged cover shall be closed or side shall be guarded with removable standard railings.
 - Chutes shall be guarded with removable standard railings and toeboard on not more than two sides of the opening and a fixed standard railing and toeboard. All standard railings shall be kept in place when the chute is not in use.
 - Skylights, Pits and Trap-Door Floor Opening
 - Skylights shall be guarded with fixed standard railings on all sides.
 - Pits and trap-doors shall be guarded with floor opening covers or standard railings on all exposed sides by removable standard railings.

Training Requirements

The Safety Representative's designated representative and/or competent person shall provide training for each associate to recognize the hazards of falling and shall train each associate in the following procedures:

- The nature of fall hazards in the work area;
- The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;
- The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used;
- The role of each associate in the safety monitoring system when this system is used;
- The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs;
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and
- The role of associates in fall protection plans;
- The standards contained in the subpart.

The employer shall verify fall protection by preparing a written certification record. The written certification record shall contain the name of the associate trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer.

When the Safety Representative has reason to believe that any affected associate who has already been trained does not have the understanding and skill required, the Safety Representative shall retrain each such associate. Circumstances where retraining is required include, but are not limited to, situations where:

- Changes in the workplace render previous training obsolete; or
- Changes in the types of fall protection systems or equipment to be used render previous training obsolete; or
- Inadequacies in an affected associate's knowledge or use of fall protection systems or equipment indicate that the associate has not retrained the requisite understanding or skill.

Project Managers will train workers in the avoidance of floor, roof, and wall opening hazards through the use of toolbox talks and daily work instructions.

Section 16 - Fatigue Management

Purpose

The purpose of this policy is to set work hour limitations and criteria for job rotation schedules to control fatigue.

Scope

This policy applies to all Safety Management Group employees and jobs that may create fatigue concerns.

Definitions

Direct Work- Safety Management Group employees that are actively engaged in scaffold erection, scaffold modification, scaffold dismantles, or any other physical activity directly associated with the job scope.

Fatigue- Fatigue is an acute, ongoing state of tiredness that leads to mental and physical exhaustion and prevents people from functioning within normal boundaries. It is more than feeling tired and drowsy, it is a physical condition that can occur when a person's physical or mental limits are reached. Fatigue can occur as a result of various factors that may be work related, lifestyle related or a combination of both. Work factors can include the work task, work scheduling and planning, and environmental conditions. Lifestyle factors can include inadequate or poor quality of sleep due to sleep disorders, social life, secondary employment, travel time and health and wellbeing.

Indirect Work- Safety Management Group employees that are engaged in management or supervisory activities including, but not limited to, manpower scheduling, job oversight, timekeeping, and safety.

Responsibilities

Company management, employees, and workers have a shared responsibility to avoid fatigue related performance impairment. All employees have the responsibility to report all signs and symptoms of fatigue to their supervisor.

Supervisors are to make safety critical decisions and take appropriate actions to prevent loss due to fatigue.

Safety Management Group will set work hour limitations and will control job rotation schedules to control fatigue, allow for sufficient sleep, and increase mental fitness in an effort to control employee turnover and absenteeism.

Individuals have a duty of care to ensure that adequate rest is obtained between shifts and that rest period activities do not cause fatigue or impair performance. When this is not the case, employees and workers have a further responsibility to report the matter to their respective Supervisor or Manager.

Procedures

Work tasks to control fatigue will be analyzed and evaluated periodically.

Employees must not chronically use over the counter or prescription drugs to increase mental alertness. Employees shall be discouraged from taking any substance known to increase fatigue in that employee, including fatigue that sets in after the effects of the drug wear off.

Any employee taking medication should consult a medical professional to determine whether the drug may affect his or her personal safety or ability to perform the essential functions of the job, and should advise the company's Safety Department of any job limitations. Upon notification of job limitations, Safety Management Group will make reasonable efforts to accommodate the limitation.

Ergonomic equipment will be used to improve workstation conditions such as anti-fatigue mats for standing, lift assist devices for repetitive lifting, proper lighting and control of temperature, and other ergonomic devices as deemed appropriate.

To reduce the amount of energy expended, lifting equipment shall be put in place. Lifting assist equipment shall be made available upon request. Lifting assist equipment shall consist of powered or manual types. All equipment shall be inspected prior to use.

Scheduling

No work shift may be scheduled for a duration that exceeds 16 hours. When project or outage work necessitates 24 hour coverage, two shifts of either 10 or 12 hours each must be scheduled. This policy is applicable to all affected Safety Management Group employees, but may be superseded by a more stringent client policy.

In the event that a scheduled shift is extended beyond sixteen (16) hours at the direction and written authorization of the client, affected employees performing direct work will be required to be off work for a period of at least eight (8) hours before being eligible to return to work.

All Safety Management Group employees working seven (7) consecutive days in a work week are subject to one (1) mandatory day off (defined as 24 consecutive hours) in a twenty-eight (28) day rolling period unless requested and authorized in writing by the client. This policy is applicable to all Safety Management Group employees engaged in 'Direct Work', but may be superseded by a more stringent client policy. Employees performing 'Indirect Work' may be granted an exemption due to critical path job scope at the discretion of senior management. Administrative controls shall be implemented by on-site supervision to stagger the employees' days off to alleviate excessive absenteeism on the 28th work day.

Periodic rest breaks will be built into the daily schedule to control fatigue and help increase mental fitness. A place to sit will be provided during rest breaks.

Training

Fatigue Management Training will be provided during New Hire Orientation and annually thereafter.

Training shall consist of the following:

- How to recognize fatigue;
- How to control fatigue through personal behavior and habits; and
- Reporting fatigue to supervision.

Section 17- First Aid / CPR

Purpose

To treat minor injuries and to give basic first aid treatment to employees with more serious injuries until medical assistance arrives or while the employee is transported to a medical facility.

Scope

If onsite services are not available, Safety Management Group will have at least one first aid trained person is at the jobsite at all times. Safety Management Group shall have provisions prior to commencement of a project, for prompt medical attention in case of serious injuries.

Definitions

First Aid - Emergency treatment administered to an injured or sick person before professional medical care is available.

Responsibilities

A first aid kit will be provided for each jobsite in the gang box or company vehicles. First aid kits shall consist of appropriate items and stored in a weather proof container with individual sealed packages of each type of item per ANSI. The Site Supervisor is responsible to ensure that the kit is checked before being sent out on each job and at least weekly on each job to ensure that the expended items are replaced.

Only trained first aid personnel shall administer first aid at the jobsite.

Safety Management Group will maintain an ANSI (Z 308.1 - 1978) approved first aid kit.

The site representative is responsible for ensuring that his/her organization's on-site first aid kit is properly stocked, easily accessible, and maintained in accordance with ANSI (Z 308.1 - 1978).

In the absence of a clinic or doctor that is reasonably accessible in terms of time and distance (response time should not exceed 4 minutes), at least 1 person from the organization will be trained and certified (by either the American Red Cross or the National Safety Council) to provide first aid and cardio pulmonary resuscitation (CPR).

Procedures

Basic Rules of First Aid:

The first rule is that if you do not know how to give it, do not try to. You may do more harm than good. It's important to know not only what to do, but also what **NOT** to do.

If required, administer the following life saving procedures:

- Open the airway.
- Look, listen, and feel for breathing.
- Check the pulse.
- Stop the bleeding and protect the wound.
- Treat for shock.

Do not move the injured person unless you know that moving him will not worsen the injury.

- Keep the injured person lying down.
- Do not give liquids to the unconscious.

In the event of an emergency where there is an injured employee seeking medical attention beyond first aid call 911 or client's contact, if it is determined that the response time of the ambulance is insufficient then the site supervisor will escort the injured employee to the nearest emergency room.

During the summer months drink plenty of water (small amounts and frequently). Once heavy sweating has started, it is very difficult to drink an amount of water that is equal to the amount lost by sweating, about one quart per hour.

Eye wash will be available in the first aid kit for those employees exposed to injurious corrosive materials. An eye wash facility may be set up in the onsite job trailer.

Do **NOT** take in an excessive amount of salt.

At times of high humidity and high temperature or when returning to a hot area, pace your work until you become acclimated to existing conditions.

The site supervisor will ensure phone numbers of physicians, hospitals, and ambulances will be posted in a conspicuous place at the jobsite.

Safety Management Group first aid kits shall conform to ANSI (Z308.1-1978) requirements:

Training Requirements

Safety Management Group will schedule First Aid and CPR training classes for designated employees at regular intervals during the year.

Section 18- Hazard Communication (HAZCOM)

Purpose

To properly educate and protect employees from exposures to hazardous chemicals in the workplace.

Definitions

Chemical - Any substance, or mixture of substances.

Exposure or Exposed - An employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

Flammable liquid - Any liquid having a flashpoint at or below 199.4°F. Flammable liquids are divided into four categories as follows:

-Category 1 shall include liquids having flashpoints below 73.4°F and having a boiling point at or below 95°F.

-Category 2 shall include liquids having flashpoints below 73.4°F and having a boiling point above 95°F.

-Category 3 shall include liquids having flashpoints at or above 73.4°F and at or below 140 °F. When a Category 3 liquid with a flashpoint at or above 100°F is heated for use to within 30°F of its flashpoint, it shall be handled in accordance with the requirements for a Category 3 liquid with a flashpoint below 100°F.

-Category 4 shall include liquids having flashpoints above 140°F and at or below 199.4°F. When a Category 4 flammable liquid is heated for use to within 30°F of its flashpoint, it shall be handled in accordance with the requirements for a Category 3 liquid with a flashpoint at or above 100°F.

Flash point - The minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid.

Globally Harmonized System - The Globally Harmonized System (GHS) is an international approach to hazard communication, providing agreed criteria for classification of chemical hazards, and a standardized approach to label elements and safety data sheets. It is based on major existing systems around the world, including OSHA's Hazard Communication Standard and the chemical classification and labeling systems of other US agencies.

Hazard Category - The division of criteria within each hazard class, (e.g., oral acute toxicity and flammable liquids include four hazard categories). These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

Hazard Class - The nature of the physical or health hazards, (e.g., flammable solid, carcinogen, oral acute toxicity).

Hazard Not Otherwise Classified (HNOC) - An adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

Hazard Statement - A statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

Hazardous Chemical - Any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

Health Hazard - A chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to §1910.1200—Health Hazard Criteria.

Immediate Use - The hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Label - An appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

Label Elements - The specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

Mixture - A combination or a solution composed of two or more substances in which they do not react.

Physical Hazard - A chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas.

Pictogram - A composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

Precautionary Statement - A phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

Product Identifier - The name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS.

Safety Data Sheet (SDS) - A written or printed material concerning a hazardous chemical that is prepared in accordance with paragraph (g) of this section.

Signal Word - A word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "*DANGER*" and "*WARNING*." "*Danger*" is used for the more severe hazards, while "*warning*" is used for the less severe.

Substance - Chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Responsibilities

The Safety Officer, Facilities Manager, Shop Foreman and/or Project Manager must label all containers of hazardous materials located at the workplace, not previously labeled by the manufacturer.

The Safety Officer will maintain SDS binders at the main office, as well as administering the HAZCOM written program and training.

The Project Managers will be responsible for ensuring that labeling practices are observed and complied with per the HAZCOM program requirements in the workplace as materials arrive (new and used).

Procedures

All Safety Management Group employees will be aware of the potentially hazardous materials used on the premises. These materials will be identified with warning labels and SDS's will be kept for each.

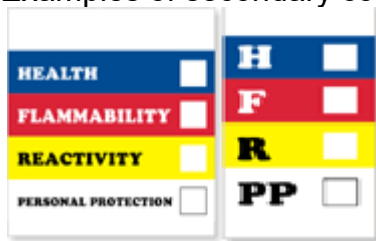
This program includes guidelines on identification of chemical hazards and the preparation and proper use of container labels, placards and other types of warning devices. To understand the potential dangers of chemicals, employees will follow these HAZCOM written program guidelines:

- Chemical Inventory
 - Safety Management Group maintains an inventory of all known chemicals in use on the worksite. A chemical inventory list is available from the Safety Officer.
 - Hazardous chemicals brought onto the worksite will be included on the hazardous chemical inventory list.

- Container Labeling

- All chemicals on site will be stored in their original or approved containers with a proper label attached, except small quantities for immediate use. A proper label is one that contains the material's product identifier, signal word(s), hazard statement(s), pictogram(s), precautionary statement(s), and chemical manufacturer information (name, address, and telephone number). Any containers not properly labeled should be given to the Safety Officer for proper handling.
 - Workers may dispense chemicals from original containers only in small quantities intended for immediate use. Any chemical left after work is completed must be returned to the original container or the Safety Officer for proper handling.
 - All secondary containers must have the appropriate warning label.
 - Safety Management Group will rely on manufacturer applied labels whenever possible, and will ensure that these labels are maintained. Containers that are not labeled, or from which the manufacturer's label has been removed, will be relabeled by the Safety Officer or Project Manager.
 - Safety Management Group will ensure that each container is labeled to identify any hazardous chemicals inside and any appropriate hazard warnings.
- Safety Data Sheets (SDS)
 - Employees working with a hazardous chemical may request a copy of the safety data sheet (SDS). Requests for an SDS should be made to the Safety Officer. SDS's will be made available, upon request, to employees, their designated representatives, the Assistant Secretary & the Director in accordance with the requirements of 29 CFR 1910.1020(e).
 - SDS's should be available, and standard chemical reference may also be available, on the site to provide immediate reference to chemical safety information. SDS's are required for each hazardous chemical used.
 - All SDS's must include the following information:
 - Section 1 Identification;
 - Section 2 Hazard(s) identification;
 - Section 3 Composition/information on ingredients;
 - Section 4 First aid measures;
 - Section 5 Fire-fighting measures;
 - Section 6 Accidental release measures;
 - Section 7 Handling and storage;
 - Section 8 Exposure controls/personal protection;
 - Section 9 Physical and chemical properties;
 - Section 10 Stability and reactivity;
 - Section 11 Toxicological information;
 - Section 12 Ecological information;
 - Section 13 Disposal considerations;
 - Section 14 Transport information;
 - Section 15 Regulatory information;
 - Section 16 Other information, including date of preparation or last revision.
- Employee Training
 - Employees will be trained upon initial assignment and annually thereafter, to work safely with hazardous chemicals. Employee training will include:
 - Methods that may be used to detect a release of hazardous chemicals in the work place

- Physical and health hazards associated with chemicals
 - Protective measures to be taken
 - Safe work practices, emergency responses and use of personal protective equipment
 - Information on the Hazard Communication Standard including:
 - Labeling and warning systems
 - An explanation of Safety Data Sheets
 - Personal Protective Equipment (PPE)
 - The Project Manager will supply the required PPE. Any employee found in violation of PPE requirements may be subject to disciplinary actions up to and including discharge.
- Emergency Response
 - Employees must report any incident of over exposure or spill of a hazardous chemical/substance to the Project Manager at once.
 - The Project Manager will ensure that proper emergency response actions are taken in leak/spill situations.
 - Hazards of Non-Routine Tasks
 - The Project Manager will inform employees of any special tasks that may arise which would involve possible exposure to hazardous chemicals.
 - The Project Manager will review safe work procedures and use of required PPE prior to the start of non-routine tasks. Where necessary, areas will be posted to indicate the nature of the hazard involved.
 - Informing Other Employers
 - Other on-site employers are required to adhere to the provisions of the Hazard Communication Standard.
 - Information on hazardous chemicals known to be present will be exchanged with other employers. Employers will be responsible for providing necessary information to their employees.
 - A copy of the HAZCOM program, including SDS's will be present on each jobsite.
 - Safety Management Group's written hazard communication program will be readily accessible to other on-site employers.
 - All employee currently speak English, appropriate signage will be used if non-English speaking employees are present.
 - Examples of secondary container labels that may be used.



Section 19- Hazardous Waste Operations

Purpose

To identify, evaluate, control safety and health hazards, and provide for emergency response. The program will detail the specific chain of command, address task objectives of the operation and address site specific procedures of Safety Management Group.

Responsibilities

The project manager will ensure this policy is enforced.

Procedures

The senior official on site will take charge of emergency situations

Engineering controls, work practices and personal protective equipment will be used to reduce and maintain exposure limits. Feasible engineering controls may include the use of pressurized cabs or control booths on the equipment.

An emergency response plan will be implemented in writing and readily available to all affected employees. The plan will be in writing and be available for inspection by employees, their representatives and OSHA. The emergency response plan will contain the following:

- Pre-emergency planning and coordination with outside parties.
- Personnel roles, lines of authority, training and communications.
- Emergency recognition and prevention.
- Safe distances and places of refuge.

Exposure Monitoring: Exposure monitoring and air sampling will be performed to evaluate effectiveness of prescribed PPE and to evaluate worker exposure to site-related contaminants and hazardous substances used in the cleanup process. The monitoring will address initial entry, periodic monitoring, possible IDLH and whenever exposure may be a possibility.

Decontamination Procedures and Personal Hygiene: Decontamination procedures will be monitored by the site safety and health supervisor to determine the effectiveness, if the procedure is found to be ineffective, appropriate steps will be taken to correct the deficiencies. A personal hygiene and decontamination station will be set up in the contamination reduction zone for personnel to remove contaminated PPE and to wash when exiting the exclusive zone. A decontamination procedure will be developed, communicated to employees and implemented before any employee or equipment may enter areas on site where potential for exposure to a hazardous substance.

Decontamination will be performed in a geographical area that will minimize the exposure of uncontaminated employees or equipment to contaminated employees or equipment.

All employees leaving a contaminated area will be decontaminated. All contaminated clothing and equipment leaving a contaminated area will be appropriately disposed of or decontaminated. PPE and equipment will be decontaminated, cleaned, laundered, maintained or replaced as needed to maintain their effectiveness. Employees whose non-impermeable clothing becomes wetted with hazardous substances will immediately remove the clothing. Unauthorized employees will not remove protective clothing or equipment from change rooms. Where the decontamination procedures indicate a need for regular showers and change rooms outside of a contaminated area, it will be provided and meet the requirements of 29 CFR 1910.141

Medical Surveillance: Medical surveillance will be provided at no cost to employees who may be exposed to hazardous substances or health hazards at or above the permissible exposure limit, above the published exposure levels for the substances, without regards to the use of respirators, for 30 days or more a year.

Training Requirements

Employees will comply with the following general and project specific training requirement.

General Training: General training requirements apply to project personnel exposed to contaminant related health and safety hazards. General training must comply with the following requirements:

- 40-hour off-site hazardous waste site instruction. Off-site instruction must comply with the 40-hour training requirements in OSHA standards 29 CFR 1910.120 and 29 CFR 1926.65.
- 8-hour annual refresher training. Refresher training must comply with the requirements in OSHA standards 29 CFR 1910.120 and 29 CFR 1926.65.
- 3 days of field experience under the direct supervision of a trained, experienced Project Manager.

Project Manager Training: On-site Project Managers must comply with the 8-hour supervisory training requirements in OSHA standards 29 CFR 1910.120 and 29 CFR 1926.65.

Project Specific Training: Project specific training will be conducted before each hazardous waste removal project is started, covering this policy and other site specific concerns.

All trainers will be qualified or competent. Trainers will be considered qualified or competent by training and/or academic credentials and instructional experience to demonstrate competency.

Section 20- Hearing Conservation Program

Purpose

To provide a hearing conservation/protection program for all Safety Management Group associates.

Definitions

Decibels (dB) - This symbol is used for expressing the relative intensity of sounds. Zero (0) represents the average least perceptible sound to approximately 130 for the average pain threshold.

Time Weighted Average (TWA) - Averaged dB over 1 hour time period through the usage of a noise dosimeter.

Procedures

When information indicates that employee exposure may equal/exceed the 8-hour time weighted average of 85 decibels, a monitoring program will be implemented to identify employees to be included in the hearing conservation program.

Areas where daily noise exposures are likely to exceed the 85 decibels (TWA) will be posted with hearing protection required signs.

Hearing Protection Required

- Hearing protection required signs are to be posted at the entrance and throughout all areas that have been determined as capable of exposing associates to noise levels in excess of 85 decibels over an 8 hour time weighted average (TWA).
- Once a hearing protection required area has been established, all associates working or entering the area will be required to wear the appropriate hearing protection.

Types of Hearing Protection

- Suitable ear plugs, muffs, etc. will be readily available for associate usage. The Manager will review the types of hearing protection that will be made available for all effected associates. Hearing protectors will be evaluated for the specific noise environments in which the protector will be used.
- In all cases where the sound levels exceed the TWA values shown below, a continuing effective Hearing Conservation Program (HCP) shall be administered.

Audiograms

Baseline audiograms will be conducted within 6 months of first exposure. There must 14 hours without workplace noise exposure before audiograms are conducted.

Audiometric testing will be offered at least annually to all associates exposed to greater than 85 decibels on an 8-hour time weighted average (TWA). A monitoring program will be established to identify employees that should be in the hearing conservation program.

Employee exposure records as well as audiometric testing records will be maintained according to the regulation.

Employees will be notified in writing of a standard threshold shift within 21 days of determination. Hearing protection requirements will be re-evaluated if a standard threshold shift occurs. The employees will also be re-fitted and retrained on the use of their hearing protectors.

Sound Pressure Level	Time Weighted Average (TWA)	Source or Effect of Noise
114-139	< = 3Hour	Power actuated tools (such as those for setting fasteners into concrete).
114-118	< = 3 Hour	Hard rock drilling or usage of a jack hammer.
105-125	< = 1 Hour	Riveting tools used on metal plates.
98-100	2 Hours	Heavy truck cab.
95-105	1 Hour - 4 Hours	Crawler tractor.
95-102	12 Hours - 4 Hours	Front-end loaders.
90-120	< = 3 Hour - 8 Hours	Earth moving equipment.
90-115	< = 3 Hour - 8 Hours	Power shovel cab.
87-89	8 Hours	Diesel air compressor.
85-98	22 hours - 8 Hours	Graders.
65-105	1 Hour - 8 Hours	Welding equipment.

The HCP includes a baseline audiogram, which tests the current level of hearing for a particular associate. This baseline audiogram (which is quantifiable data) becomes a part of the associate's medical records. The HCP also includes follow up audiograms to determine if a loss of hearing has occurred, an audiometric testing program, associate notification, hearing protection requirements, training on the effects of noise to an associate's hearing and the use of Personal Protective Equipment (PPE).

Training Requirements

A training program shall be established for all associates who are exposed to noise at or above an 8-hour time-weighted average of 85 decibels. The training program shall be repeated annually for each associate included in the hearing conservation program. Information provided in the training program will be available to all employees and updated to be consistent with changes in protective equipment and work processes.

Each associate shall be informed of the following:

- The effects of noise on hearing;
- The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care; and
- The purpose of audiometric testing, and an explanation of the test procedures.

Section 21- Heat & Cold Stress Illness Prevention Program

Purpose

The purpose of this standard is to provide all SMG associates with a general knowledge of the measures to be taken to avoid heat or cold stress related illnesses, injuries, and disorders.

Scope

This program applies to all SMG associates.

Definitions

Heat Stress Environment – Any environment that causes buildup of heat in the body to the point where the body’s thermostat has difficulty maintaining normal internal body temperature.

Hydration (fluid replacement) – Critical to controlling heat stress. Under severe work conditions the body can use in excess of 1 quart of fluid per hour through perspiration and respiration. Hydration should include Pre-Hydration – the drinking of fluids prior to their loss. Consumption of at least 1 quart of fluid per hour of scheduled work is recommended to ensure adequate hydration. Liquids that may be used include: commercial Electrolyte-Replacing preparations such as water, Gatorade, Powerade, Sqwincher, etc. Avoid liquids containing alcohol, caffeine, or high sugar content.

Heat Stress – The condition caused by any combination of air temperature, thermal radiation, humidity, air flow, workload, clothing, and other PPE that may adversely affect an individual’s physiological capacity to regulate body temperature. Heat Stress disorders are divided into the following categories:

- **Heat Stroke** – Failure of the body’s cooling system requires immediate medical attention. Marked by cessation of sweating, extremely high body temperature, and collapse resulting from prolonged exposure to high heat. The onset of heat stroke is usually abrupt and can be fatal if not properly treated. Immediate response and first aid is imperative, followed by professional medical care.
- **Heat Syncope [fainting]** – To lose consciousness because of temporary decrease in the blood supply to the brain due to over-exposure to hot environments. Fainting poses a threat primarily from resultant fall, therefore, may be extremely dangerous if the affected individual is prevented from reclining or sitting. Recovery from the faint itself is usually prompt, but the possibility of other heat stress disorders exist.
- **Heat Exhaustion [heat prostration]** – A condition marked by weakness, nausea, dizziness, and profuse sweating resulting from a temporary decreased supply of blood to the brain due to physical exertion in a hot environment.
- **Heat Cramp** – Muscle cramps or spasms resulting from an Electrolytes imbalance in the body typically due to a lack of fluid [water], but also occur when consuming large quantities of fluids during periods of heavy sweating.
- **Heat Rash** – Also called “Prickly Heat”. Occurs when sweat is not removed and skin remains wet, resulting in plugged sweat ducts. Skin infections can result.

Recovery Area – An area identified for personnel to use during recovery period. Should be away from heat stress environment and have drinking water or other suitable water supply.

Recovery Period – An estimate of the time needed to adequately recover from a heat stress environment.

Stays Time – An estimate of the time a person may be exposed to a given Heat Stress work environment before approaching possibility of risk of Heat Stress Illness.

Responsibilities

Management

To reduce the potential for heat stress illness, all managers should evaluate the work areas, jobs to be completed, weather conditions, and proceed as follows:

- Identify jobs with potential risk of heat stress and assess this risk as part of the completion of the JHA.
- Review this risk with all affected parties (work group) and inform them of the risk of heat related illnesses and stress.
- Review the signs, symptoms of heat stress and responses to each should they occur.
- Review the work rotation requirements with all affected to ensure exposure is minimized.
- Discuss the use of alternative measures such as cooling vests to reduce the effects and keep the body cool during work activities.
- Ensure an adequate supply of water, Gatorade, etc., is available for all affected associates.
- Discuss and have readily available the contact numbers for emergency medical providers in the event of heat illness.
- Communicate with the Prime Contractor the prevention methods that will be utilized to reduce the potential for heat related stress illnesses, including shaded areas, cooling shelters (if available), manpower rotation, water at the job site location, and Prime Contractor response to heat illness should assistance be required.

Associate's Responsibility

The associate's responsibility is to be:

- Familiar with the signs, symptoms, and responses to heat related illness.
- Take the necessary precautions; follow safe work practices to prevent illness.
- Understand the importance of proper hydration.
- Assist and notify management and or emergency responders of any heat stress related illness when necessary.
- Follow all recommended precautions as discussed during the pre-job meeting, JHA review, and job walk.

Procedures

Excessive exposure to heat can adversely affect an individual's mental and physical capabilities and may lead to serious physiological disorders or even death. Also, chances of accidents and errors increase substantially with excessive heat exposure. Therefore, all personnel should maintain adequate body hydration, as well as be wary of the signs and symptoms of heat stress. While there is no specific OSHA standard for Heat Stress, OSHA does consider Heat Stress a recognized hazard that requires adequate controls. Heat Stress issues must be addressed and discussed with associates before a job begins. Should a heat-related event occur to the extent that first-aid action under these guidelines must be taken, the matter must be reported as any other injury would be reported. Associates in heat stress environments shall be trained in the signs, symptoms, controls, and treatments of heat-related illnesses.

General

Adequate body hydration should always be maintained.

- Consumption of 5 to 7 ounces of fluid every 15 to 20 minutes is recommended in heat stress environments.

- Thirst alone is not an adequate indication of when to drink water. Maintain adequate hydration by drinking water regularly.
- Water supply location should be identified prior to beginning work.

Drinking water shall be available to personnel working in a heat stress environment as follows:

- As close to work area as possible.
- 2 gallons of water per person per 8-hour shift is recommended depending on level of Heat Stress.
- Water should be kept cool. Water that is warm or ice cold is not comfortable to drink.
- Sanitary cups need to be provided for each individual. Sharing cups is not permitted.
- A trash receptacle shall be provided for the disposal of used cups.

Cooling devices such as fans, cooling garments, and other engineering aids, can extend stay times in high heat environments.

- Avoid staying in one position for long periods of time, especially squatting or sitting.
- Pace work activity, avoiding sudden jerky motions.
- Wear 100% cotton clothing beneath PPE.

Recovery area shall be available to associates working in a Heat Stress environment. Recovery Area requirements include the following:

- As close to the work area as possible.
- Removed from Heat Stress environment (out of direct sun, away from any heat source, etc.).
- Adequate ventilation to allow for residual sweat to evaporate but prevent personnel from becoming chilled.
- Access to drinking water.

Stay times and Recovery Periods recommended by Supervision and documented are to be observed at all times.

- Stay times may be extended at Supervision discretion, after careful consideration of worker health condition, capability, and heat stress factors.

Work area requirements often restrict availability and location of a water supply and recovery area, as well as contribute to Heat Stress factors. These limitations must be recognized when planning and performing work activities in a heat stress environment.

The following conditions can affect susceptibility to Heat Stress related disorders. Associates should advise Supervision of any concern about their ability to tolerate heat stress exposure.

Including:

- Age
- Physical condition
- Fatigue or lack of sleep
- Acute or chronic infection
- Record of prior Heat Stroke
- Skin trauma (sunburn or rash)
- Recent alcohol consumption within 12 hours
- Dehydration, diarrhea, or other digestive problems
- Recent or chronic use of any drugs, especially diuretics
- Recent medical conditions (blood donations, surgery)

- Caffeine or sugar consumption (coffee, tea, soda, chocolate, etc.).

Associates shall monitor themselves and others for symptoms of Heat Stress.

Associates experiencing indications of Heat Stress shall immediately notify Supervision or co-worker and exit hot environment.

Associates observing Heat Stress symptoms in other associates shall immediately notify the afflicted person(s) and Supervision and assist in removing afflicted person(s) from the hot environment.

When working in extreme heat Stress environment (stay times less than 30 minutes) associates should work in teams and remain in visual proximity of one another.

Cooling Garments – A variety of cooling garments, such as ice Pack Vests, can be made available for use by associates working in hot environments. Manufacturer's directions and other applicable instructions shall be observed when utilizing cooling garments.

Heat Stress Disorders

Prevention:

Prevention can be accomplished in several ways including: Acclimatization, resting in shaded areas when time allows, air conditioning, hydration, air movement of any kind, and the wearing of proper clothing.

Acclimatization - Means becoming adjusted to work in heat and is essential if work is to be done in hot environments. The average person requires 4 -7 working days to become fully acclimatized. In a heat-stressful situation, acclimatized persons will have lower heart rates, lower body temperatures, and higher sweat rates that consist of a more dilute sweat (with less salt) than persons who are not acclimatized. Maximum sweat rates vary from 0.6 liters per hour in the un-acclimatized person to more than 1.5 liters per hour for a fully acclimatized person.

Air Movement - Evaporation of sweat from skin surface helps provide cooling. Fans may help cool a person in many situations, however fans do not cool a person at temperatures greater than 90° F when humidity is greater than 35%. Fans have been associated with increased heat stress when the ambient temperature exceeds approximately 100 degrees F. Air movement when the air temperature is greater than body temperature may increase heat stress. New associates and associates who have been away from work for a few days must be given adequate time to acclimate to the heat.

Hydration: Hydration, having enough body water and balance of body chemistry, which includes Electrolytes, is an essential factor in working safely in elevated temperatures.

To help prevent dehydration, which is excessive loss of body water and an imbalance of body chemistry that includes Electrolytes, adequate fluids should be consumed before, during, and after the job. Thirst is not an adequate warning of dehydration, and associates should not be afraid of drinking too much water since any excess will be eliminated in the urine. Drink water before you begin work or play. Associates need to begin hydrating before they begin working in hot environments. On average 1 cup of water every 15 – 20 minutes or 1 liter an hour is needed to replace fluids lost through sweating. If you wait to drink when you feel thirsty, you are too late and cannot catch up with the lost fluids.

Proper Clothing: Proper clothing is essential because up to 70 percent of the cooling effect of your body's sweat evaporation may be lost by improper clothing. Light colored clothing should be worn because it reflects the sun's radiant heat, whereas dark colors absorb it. Changing from wet to dry clothing as needed helps reduce heat stress exposure.

Assessing Environments:

The work that is performed requires a job review and discussion with all affected parties and the Prime Contractor to evaluate the potential for heat stress during job completion. The evaluation may include the following:

Radiant Heat Exposure – Will the work being performed expose the associate to increased temperature due to the work being performed outdoors, near operating equipment, in confined space, or in areas where air movement is restricted?

PPE Evaluation – Does the work being performed require special PPE which will result in added potential for heat stress? If so, additional considerations will need to be discussed regarding rotation of personnel and reduction in work time exposure to the immediate environment.

Temperature / Humidity Exposure - The effects of overall temperature and humidity will affect the body quicker than temperature alone. Assessing the work environment relating to the combination of heat and humidity considers the overall effect on the body based on the national weather service “heat index”.

Wet Bulb Thermometer (Thermo Hygrometer) – If available, the wet bulb thermometer can be used to assess the immediate area. It measures ambient temperature and humidity and provides the user with an indication of the heat stress on the body. The chart below can be used in conjunction with the wet bulb thermometer to determine those effects. If using the Hydrometer to determine work zone conditions, it is important to know that the hydrometer by itself cannot guarantee workers will not be affected by heat stress. It is only a guide and reference tool to help assess the workplace environment and indicate the overall effect on the body in that work area.

Clothing – It is important to understand that clothing and the ability of the body to sweat and evaporate help cool the body. FRC, cotton full length shirts, hard hats, gloves all affect and as such restrict the ability to cool the surface of the body. When wearing full PPE, FRC, and or working in direct sunlight the assessment should include an additional 5 – 8 degrees to the corresponding chart to get the temperature effect on the body overall.

In any of the above evaluations, the workplace-specific factors need to be considered. Heat Indexes, Wet Bulb Thermometers, etc., may not accurately reflect conditions, such as lack of air movement, radiant heat, sunshine, etc. every location must be assessed, and discussion held in reference to what precautions are needed to reduce the potential for heat stress illnesses.

Apparent Temperature Chart						
Rel Humid %	Air Temperature (Degrees Fahrenheit)					
	85	90	95	100	105	110
20	82	87	93	99	105	112
30	84	90	96	104	113	123
40	86	93	101	110	123	137
50	88	96	107	120	135	150
60	90	100	114	132	149	
70	93	106	124	144		
80	97	113	130			
90	102	122				
100	108					

The Chart above reflects the overall effect on the body of the combination of heat and humidity. It is an indication of the way your body “perceives” the environment to be and how the air “feels” verses the temperature alone.

Effects on the Body

Once you have determined the overall effect on the body based on temperature and humidity, you need to know the temperature at which injury or illness can occur. This is as follows:

- 90° – 105° F – Heat injury possible
- 105° – 130° F – Heat injury likely
- 130° F and above – Heat injury highly likely

OSHA / NIOSH / ACGIH Guidelines

It is important to know that not all governing bodies have guidelines regulating potential heat exposure. Of the three, only ACGIH issues threshold limit values as a reference. They also publish a reference decision flow chart to assist in determining whether normal work should proceed and or be altered. You may reference this in assessing your work environment. Therefore, it is important to understand the signs, symptoms, and response to heat stress illness.

Most heat stress disorders can be prevented by actively practicing preventive measures and by early recognition. Key preventive measures include the following:

- Pace work and use common sense about workload/effort.
- Drink water prior to beginning work, during work breaks, and after work to ensure adequate hydration.
- Observe Supervisory instructions concerning cooling garments, Stay Times, and Recovery Periods.

Recognition and First Aid

Heat Stroke	
Symptoms Include:	First-Aid / Actions
Loss of Consciousness	Start First Aid immediately; DO NOT WAIT FOR MEDICAL PERSONNEL TO ARRIVE
Convulsions, delirium	Move victim to cool area
Violent attitude shifts	Remove PPE and as much clothing as possible
Skin overheated and usually dry, red, or spotted	Drench victim thoroughly with water and fan vigorously
Death is possible without proper medical attention	Lowering body temperature as soon as possible is Essential
	Call the local emergency number for medical attention

Heat Syncope [fainting]	
Symptoms Include	First-Aid / Action
Light headedness, especially when rising After squatting or sitting	Move victim to a cool area
Weakness or fatigue	Remove PPE and loosen clothing
Profuse sweating	Have victim recline with feet elevated or sit with Head between knees [to improve blood flow to Head]
Blurred vision	Give moderate amounts of cool water
Chills	Call the local emergency number for medical attention
	Consult a physician if symptoms recur [may be causes other than Heat Stress]

Heat Cramps	
Symptoms Include:	First-Aid / Actions
Profuse Sweating	Move to cool area and lie or sit down
Leg or abdominal muscle spasms	Remove PPE
	Loosen Clothing
	Drink water or non-carbonated, non-alcoholic fluids. Salt or Electrolyte replacement may help. Consult a Physician. Eat a Banana for Potassium
	Massage cramped muscles
	Consult a Physician if symptoms recur [may be causes other than Heat Stress]

Heat Exhaustion	
Symptoms Include:	First-Aid / Action
Profuse Sweating	Move victim to cool area
Nausea, weakness	Remove PPE, Loosen Clothing
Shortness of Breath	Elevate Legs and loosen clothing to facilitate blood flow
Clammy, moist skin	Give water or non-carbonated, non-alcoholic fluids
Headache, dizziness	Cool victim by sprinkling with water and/or fanning
Tingling sensation in extremities	Call the emergency number for medical attention
Complexion can be pale or flushed	Consult a Physician if symptoms recur
Heat Rash [Prickly Heat]	
Symptoms Include:	First-Aid / Actions
Rash on Skin	Rest in cool place during work breaks
Profuse Sweating	Bathe and thoroughly dry skin daily
	Consult a Physician if symptoms recur as they may be caused by other than Heat Stress

Cold Injury Prevention

To prevent cold-related injuries/stresses in the work environment, by providing guidance in the types, recognition, evaluation, and control of cold related stress/injury. Cold injury stress prevention awareness shall be provided at least once a year to all personnel.

Types, warning signs/symptoms and first aid for cold related injuries/stresses:

Frostnip: A mild form of frostbite, where only the skin freezes.

- Susceptible body parts include extremities such as fingers, toes, ear lobes and or tip of the nose.
- Symptoms include pain or burning sensation, skin appears yellowish or white but feels soft to the touch.
- First aid: Do not rub or massage the area. Warm the area gradually and use body heat. Report to medical facility for evaluation/treatment.

Frostbite: Skin and underlying tissue (fat, muscle, and bone) are frozen.

- Susceptible body parts include extremities such as fingers, toes, ear lobes and/or tip of the nose.
- Symptoms include the skin being white and waxy and skin is hard to the touch. No sensation and the area is numb.
- First aid: Immediately seek medical attention. Do Not rub or massage the area. Warm slowly, use body heat.

Hypothermia: Feeling cold over a prolonged period can cause a drop in core body temperature.

- Symptoms include shivering, confusion, and loss of muscular control. Poor performance, irrational decisions, and not being mentally alert can progress to a life-threatening condition where shivering stops, the person loses consciousness, and cardiac arrest may occur.
- First aid requires immediate medical attention. Get the associate indoors, lay the associate down, and avoid rough handling, particularly if the associate is unconscious. Gently remove wet clothing if applicable. Warm associate gradually, using available heat source.

Associate Responsibilities

Avoiding cold-related injuries/stresses include:

- Know individual limitations.
- Know warning signs/symptoms.
- Wear multiple layers.
- Buddy system.
- Pre-work stretching.
- Limit exposed skin.
- Maintain hydration.
- Follow work warm-up schedule.

Dangers of Dehydration

- Loss of body fluid changes the flow of blood to the extremities, increasing risk of cold stress.
- Coffee intake should be limited due to diuretic and circulatory effects.
- Drink warm sweet drinks and soups, which provide high caloric intake and fluid.

Use of drugs, including prescription and over the counter medicines and alcohol that inhibits the body's response to the cold or impair judgment require monitoring.

Proper use of engineering and administrative controls can reduce risk.

Use proper personal protective equipment to reduce the risk of exposure.

Review work duration and schedule.

- What are the frequencies at which task must be performed?
- How much time is required to perform the work?
- How much time is required for preparation, setup, actual task performance, and any normal breaks?
- Excessive overtime work, piecework, and machine-paced work are additional factors to consider.

Clothing

Personal Protective Clothing is perhaps the most important step in fighting the elements. Wear several layers [at least 3] of loose-fitting, lightweight, warm clothing. Trapped air between the layers will insulate you. Layers may be removed to avoid sweating and subsequent chill.

- Wear the outer layer to break the wind and allow some ventilation.
- Layer to absorb sweat and retain insulation.
- The inner layer allows ventilation.

The body can lose a substantial amount [50%] of heat from the head.

- Adequately cover the head and/or the face.

- Cover your mouth to protect your lungs from extreme cold.
- Feet and hands are equally important; wear good quality gloves (mittens, snug at the wrist, are better than gloves).
- Wear approved winter work boots (insulated)

Environmental Conditions

Air temperature, humidity, and wind speed all affect cold-related-injury/stress potential. If available, management may refer to and or use the “Wind Chill Calculator” to assist in evaluating prevailing environmental site conditions.

Controls to help avoid cold-related injury/stress.

As with any hazard, feasible engineering controls should be the primary control measure, followed by administrative [work practice] controls and PPE, in that order.

- Engineering controls: Use an on-site source for heat.
- Administrative and work practice controls: If possible, schedule cold-related injury/stress work when conditions are at their minimum. Schedule cold work for the warmest part of the day and implement a work warm-up schedule.

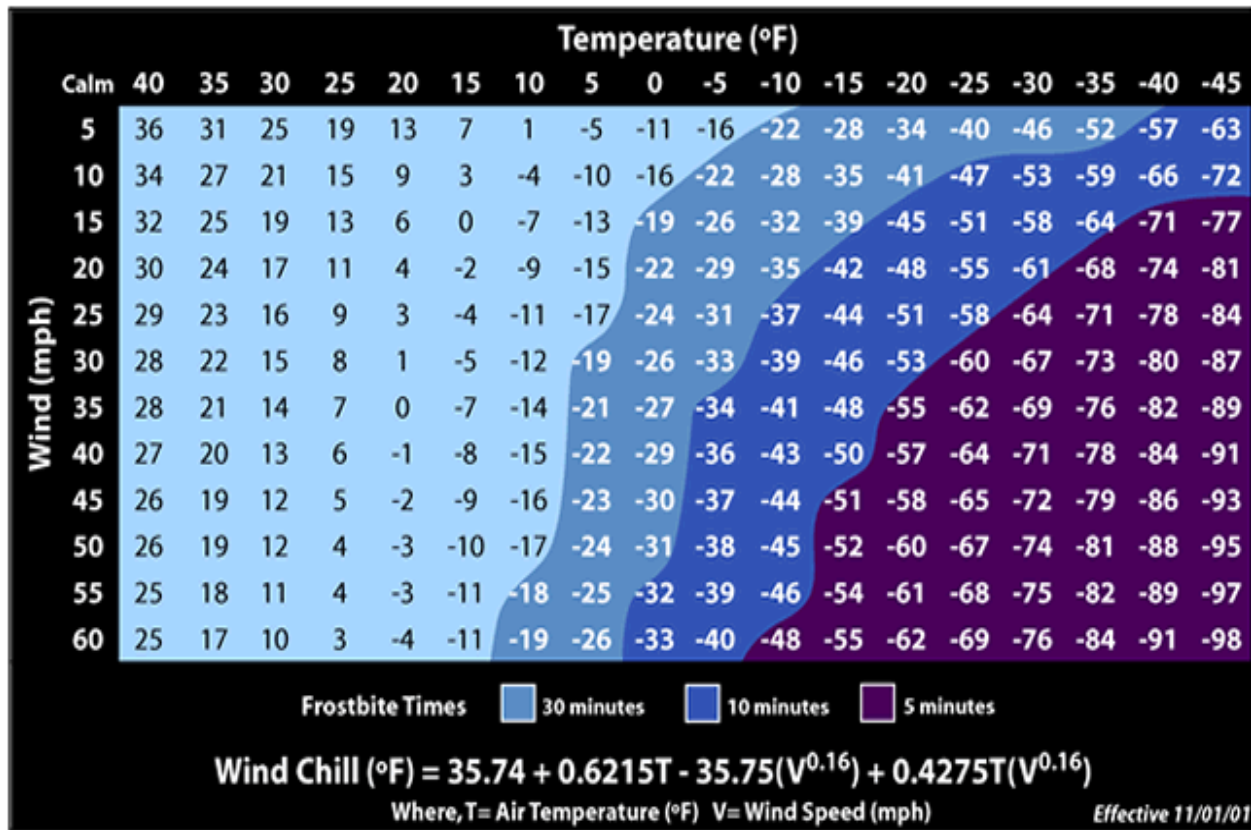
Special measures consistent with the provisions of local and federal regulations may be needed in some circumstances. For example: When work must be done in isolated areas, the “buddy system” or reliable two-way communication system should be used. Some vehicles may need to be equipped with survival gear.

Training Requirements

Training on this policy will occur at New Hire Orientation & annually thereafter.



Wind Chill Chart



Section 22- Hydrogen Sulfide Awareness

Purpose

Hydrogen Sulfide (H₂S) is one of the deadliest hazards found in the oil and gas field. The purpose of the Hydrogen Sulfide Awareness Program is to provide basic information and work practices to help field employees to recognize the presence of and protect themselves from the lethal effect of H₂S.

Scope

This policy applies to all affected Safety Management Group employees.

Definitions

N/A

Procedures

Sources of H₂S:

H₂S is a gas which occurs in natural gas, crude oil, condensate and produced water. H₂S can be found at oil and gas drilling, work over and producing locations, within pipelines or in confined spaces such as excavations, production tanks, frac tanks or mud tanks.

Properties of H₂S:

PROPERTY	H ₂ S
Color	Colorless
Odor	Odor of rotten eggs in lower concentrations
Vapor Density	1.189
Flammability	Forms explosive mixtures with air or oxygen
Explosive Limits	4.3 to 46 percent by volume in air
Ignition Temperature	500 degrees Fahrenheit
Liquid Soluble	Yes

Detection Methods:

There are several ways you can be alerted to the presence of H₂S gas. Your nose is usually the first to notice the presence of H₂S and, unfortunately, the most unreliable. You cannot rely on your nose to tell you how much H₂S is present.

When monitoring for H₂S, be prepared for lethal concentrations by wearing an approved respirator. To determine the amount of H₂S present in a work area, one of the following devised can be used:

- Gas Detector Tubes – the concentration of H₂S is registered by the length of discoloration when air is drawn through the detector tube.
- Monitors – personal monitors continuously monitor for H₂S and warn of its presence. Indicating monitors also continuously monitor for H₂S and give a read out to the H₂S concentration as well as warning of its presence.
- Personal or area monitors will alarm when the PEL exceeds the preset level of 20 PPM for 1910 or 10 PPM for 1926.

Monitors will be tested before each use and calibrated as needed and on a regular basis. If an air monitoring systems alarms, employees are to vacate the area.

Safe Work Practices:

In a work area where H₂S is suspected or known to exist:

- The buddy system should be used
- A wind sock should be prominently displayed
- Employees should be aware of the wind direction and approach the equipment from upwind
- A personal or indicating H₂S monitor should be used
- Approved self-contained breathing apparatus or airline respirator with escape SCBA should be used if employees will be exposed to H₂S concentrations over the OSHA PEL.
- Precautions should be taken when approaching low areas such as ditches, ravines, inside firewall, etc.
- Extreme precautions should be used when working around the vents and thief hatches of tanks containing sour crude oil, condensate and/or produced water
- Remember that H₂S is liberated from a liquid as that liquid is heated or agitated
- Employees must be aware of site specific contingency/emergency plans

Rescue and First Aid

If personnel have gone down in a known or suspect H₂S area:

- CALL FOR HELP OR BACK-UP PERSONNEL
- Put on the approved breathing air equipment before attempting rescue
- Remove the victim immediately to an upwind location with plenty of fresh air
- If trained to do so, administer rescue breathing and CPR as needed.

Health Effects

Hydrogen Sulfide is a mucous membrane and respiratory tract irritant; pulmonary edema, which may be immediate or delayed, can occur after exposure to high concentrations.

Symptoms of acute exposure include nausea, headaches, delirium, disturbed equilibrium, tremors, convulsions, and skin and eye irritation.

Inhalation of high concentrations of hydrogen sulfide can produce extremely rapid unconsciousness and death. Exposure to the liquefied gas can cause frostbite injury.

Acute Exposure

Hydrogen Sulfide can cause inhibition of the cytochrome oxidase enzyme system resulting in lack of oxygen use in the cells. Anaerobic metabolism causes accumulation of lactic acid leading to an acid-base imbalance. The nervous system and cardiac tissues are particularly vulnerable to the disruption of oxidative metabolism and death is often the result of respiratory arrest. Hydrogen sulfide also irritates skin, eyes, mucous membranes, and the respiratory tract. Pulmonary effects may not be apparent for up to 72 hours after exposure.

Central Nervous System (CNS)

CNS injury is immediate and significant after exposure to hydrogen sulfide. At high concentrations, only a few breaths can lead to immediate loss of consciousness, coma, respiratory paralysis, seizures, and death.

CNS stimulation may precede CNS depression. Stimulation manifests as excitation, rapid breathing, and headache; depression manifests as impaired gait, dizziness, and coma, possibly progressing to respiratory paralysis and death. In addition, decreased ability to smell hydrogen sulfide occurs at concentrations greater than 100 ppm.

Respiratory

Inhaled hydrogen sulfide initially affects the nose and throat. Low concentrations (≤ 50 ppm) can rapidly produce irritation of the nose, throat, and lower respiratory tract. Pulmonary manifestations include cough, shortness of breath, and bronchial or lung hemorrhage. Higher concentrations can provoke bronchitis and cause accumulation of fluid in the lungs, which may be immediate or delayed for up to 72 hours. Lack of oxygen may result in blue skin color.

Cardiovascular

High-dose exposures may cause insufficient cardiac output, irregular heartbeat, and conduction abnormalities.

Renal

Transient renal effects include blood, casts, and protein in the urine. Renal failure as a direct result of hydrogen sulfide toxicity has not been described, although it may occur secondary to cardiovascular compromise.

Gastrointestinal

Symptoms may include nausea and vomiting.

Dermal

Prolonged or massive exposure may cause burning, itching, redness, and painful inflammation of the skin. Exposure to the liquefied gas can cause frostbite injury.

Ocular

Eye irritation may result in inflammation (i.e., keratoconjunctivitis) and clouding of the eye surface. Symptoms include blurred vision, sensitivity to light, and spasmodic blinking or involuntary closing of the eyelid.

Section 23 – Job Competency

Purpose

The purpose of this program is to establish general job competency requirements

Scope

This procedure applies to all Safety Management Group Company operations

Responsibilities

All site managers and supervisors shall ensure all employees assigned to their project meet job competency requirements and complete training.

Site managers and supervisors shall ensure that any work that may endanger and employee must be completed by an employee who is competent to do the work.

Site managers and supervisors shall ensure all employees have sufficient experience to safely perform work without supervision or with only minimal degree of supervision.

Employees attend and follow requirements of safety and health management training.

General

Competence is a combination of knowledge, understanding and skill, and the appropriate level of competence cannot be acquired simply by attending a training session. The understanding and skill are acquired by experience. For individuals involved in exposure to health and safety hazards and risks experience and training are essential.

At Safety Management Group Company our view of competency assurance involves the continuous assessment of training and development needs against a person's responsibilities, abilities and critical activities. This process enables the continuous improvement loop that feeds back into training and development activities that ensure competency assurance is an ongoing career cycle process.

1. Job Description Identified – Candidate Selection and Hiring Process
 - Background check
 - Drug screen
 - Physical assessment
 - Person assessed and hired for open position
2. Experience, qualifications assessed for initial training and training completion
3. Further training required? If no
 - Ready for work
 - On the job training
 - Competency continually assessed
4. Annual performance appraisal
 - Ready to promote
 - Employee promoted
 - Further training required

Competency is verified before employees are permitted to perform tasks independently. A competent person [supervisor, foreman, instructor] must verify that an employee is

competent to perform their roles and responsibilities before being allowed to work independently. If there is a site Short Service Employee [SSE] program established the new or transferred employee will fall under the SSE requirements as well.

Identification of Documentation

Documentation is obtained from employees to demonstrate they meet the qualification of their job. Based on the job description requirements documentation may include educational, certifications, licenses, prior acceptable training course completion, etc.

Documentation is reviewed and confirmed as actual during the employee hiring process.

Identification of Positions

An organizational chart and list of job titles have been established by Safety Management Group. Based on the positions and their exposure to risk their required training is entered into a training matrix. Job descriptions are prepared for each job title.

Identification of Qualifications

Minimum qualification requirements for each job title have been established by Safety Management Group. Qualifications may include a combination of education, certification, and experience. Safety training completion for the indicated job title is required before full qualifications are met to allow an employee to begin work.

Training

Employees shall receive job specific training. No work by an employee is allowed to begin until orientation/training is completed.

Supervisors and managers receive annual, documented safety management training.

Section 24- Jobsite Security

Purpose

The purpose of this program is to define the site security requirements for General Contractors using Safety Management Group as their safety representative. The procedure will ensure that employees understand and follow all site security requirements.

The purpose of this program is to ensure that contractors and visitors have proper identification, as well as training associated with Safety Management Group, contractor safety program.

Scope

This program covers all Safety Management Group employees and all contractors and visitors performing activities at Safety Management Group.

Responsibilities

Department Managers shall ensure that personnel under their direction maintain compliance with this program.

Safety Manager shall ensure that supervisors and employees are trained on this program and shall provide advice and counsel for the program. The Safety Manager or his designee is the employee that has had training on administering the contractor's safety orientation.

Department Supervisors and Project Engineers (employees responsible for overseeing the contractual activities for a particular work activity) shall provide guidance on the implementation of and compliance with this program.

Employees shall follow all procedures within this program.

Contractor/Permanent Contractor – Individual that is allowed to perform work (contractually) at Safety Management Group and has completed the required contractor's safety orientation. The Contractor/Permanent contractor is responsible for complying with this procedure.

Visitor - A visitor is one that is not performing contractual or physical work on the Safety Management Group premises. This includes, but is not limited to, individuals such as postal deliverers, contractors, sales agents, governmental agents, etc. A visitor is responsible for complying with this procedure.

General Information

Security measures are put in place to provide safe and adequate means of performing work activities at Safety Management Group.

A general Risk Assessment should be performed at the company level to address common risks across job sites. Security should also be addressed at each job site during pre-job meetings/toolbox talks/hazard assessments (JSAs). Affected employees should be provided an opportunity to participate in risk assessments.

All gates and doors must be closed and locked or when there is Safety Management Group business being performed in the immediate area. In either case, there must be continuous surveillance of the unlocked access point.

No Contractor/Permanent contractor is permitted to perform work activity on Safety Management Group property unless they have successfully completed the contractor safety orientation training

Contractors/Permanent contractors shall obey the drug policy at all times. Safety Management Group will perform oral drug screening on all contractors performing activity on Safety Management Group property.

Contractors/Permanent contractors shall follow all safety guidelines contained within Safety Management Group's contractor safety orientation program. Any contractor seen violating Safety Management Group's safety policy will be dismissed immediately.

Contractors/Permanent contractor will be permitted to move unattended within their required work location

Visitors are not permitted onsite, unless accompanied by a representative from Safety Management Group.

Procedure

Site Access

Safety Management Group Employees: Employees shall enter the Facility only for the purpose of working. Unauthorized entry may result in disciplinary action. Employees' picture identification badges shall be worn at all times and viewable. These badges will consist of the individual's picture, department, employee number and the Safety Management Group logo. Vehicles: Only Facility vehicles, delivery vehicles and service vehicles dropping off or picking up freight, vehicles of authorized employees and authorized visitors' vehicles are allowed inside the Facility.

Visitors: All visitors entering the facility for the purpose of conducting business or other related activities will be issued access badges based on the nature of their business and access requirements.

Permanent Contractors - Identification badges will be worn at all times and viewable. These badges will consist of the individual's picture, company, badge number and the Safety Management Group logo. Identification badges will only be given to contractors who have completed the required contractor safety orientation and are to be worn and viewable at all times. This identification badge will allow contractors to move within the assigned working location unaccompanied. Each identification badge has a number associated with it that will be logged in by the security officer at the time the individual signs his/her name within the log book.

Visitors – "Red" visitor identification badges are to be worn and viewable at all times. Visitors must be escorted by Safety Management Group personnel while onsite. If a visitor is unaccompanied, they will be asked to leave the site immediately. Each identification badge has a number associated with it that will be logged in by the security officer at the time the individual signs his/her name within the log book.

Contractors – "Green" contractor identification badges will only be given to contractors who have completed the required contractor safety orientation and are to be worn and viewable at all times. This identification badge will allow contractors to move within the assigned working

location unaccompanied. Each identification badge has a number associated with it that will be logged in by the security officer at the time the individual signs his/her name within the log book.

Contractor Safety Orientation

Prior to starting a work activity at Safety Management Group, a qualified Safety Management Group Safety Representative shall conduct a pre-job safety meeting with the contractor on the nature of the hazards associated with the particular Safety Management Group site work being performed. Likewise, the nature of the hazards associated with the task being performed by the contractor shall be shared with the Safety Management Group Safety Rep.

Safety Management Group Safety Representative will inform the contractor of all associated personnel protective equipment needed, confined space permits needed, emergency action plan, lock out/tag out, any hot work requirements needed, etc. This will be conveyed in accordance with Safety Management Group's Safety Program.

All meetings will conclude with the signing of the "*Contractor Safety Attendance*" form.

Visitors

Visitors are not considered contractors. Visitors are only allowed on the premises while being accompanied by a Safety Management Group Site Representative. A visitor is one that is not performing contractual or physical work on the Safety Management Group premises. This includes, but is not limited to, individuals such as postal deliverers, contractors, sales agents, government agents, etc. A visitor is responsible for complying with this procedure.

Drugs/Alcohol

The use, possession or sale of any controlled substance or alcoholic beverages on Safety Management Group's property is prohibited. Any violation shall result in immediate dismissal from Safety Management Group's premises. It is the responsibility of the contractor or visitor to maintain compliance with this standard.

If any contractor or visitor appears to be under the influence of any controlled substance or alcoholic beverage, that individual will be dismissed immediately and dealt with in accordance with the contractor or visitor policies. Any contractor or visitor dismissed will not be allowed to perform work at any of Safety Management Group's locations again.

Lack of observance and enforcement can negatively impact the contractor's ability to fulfill the terms of the contract with Safety Management Group.

Personal Conduct

All contractors and visitors will maintain a sense of safety awareness at all times. Engaging in any manner that is not suitable, such as horseplay, harassment, fighting and/or verbal abuse is prohibited. Any contractor or visitor seen performing such acts will be dealt with in accordance with the contractor's policies and dismissed immediately.

Injury/Illness

Any contractor or visitor injury shall be reported promptly to the contracting supervision and Safety Management Group Site Representative. Contractor or visitor will be responsible for investigating, recording and reporting all injuries of their employees to the Safety Management Group Site Representative as soon as possible in order to assist if medical help is needed.

Any contractor or visitor incapable of performing their duties due to illness shall report to the contracting supervision. The contractor or visitor is responsible to arrange suitable treatment in accordance with their own company policies.

Lack of observance and enforcement can negatively impact the contractor's ability to fulfill the terms of the contract with Safety Management Group.

Safety Management Group must ensure an incident investigation will be completed when a jobsite security incident occurs. The goal of the investigation is to identify root causes and take corrective action to reduce the potential for future incidents.

Firearms

Firearms and/or explosives are forbidden on Safety Management Group property. A contractor or visitor known to have a firearm or explosive in his possession while onsite, will be immediately dismissed.

Property

All contractors and visitors shall safeguard Safety Management Group property at all times while onsite. Any theft, accidents or damage to Safety Management Group property, regardless of type, shall be reported promptly to the Safety Management Group Site Representative.

Training

Safety Management Group must ensure employees are trained on policies, procedures, and workplace arrangements to prevent security incidents, the appropriate response (including how to obtain assistance) and procedures for reporting, investigating and documenting security incidents. Retraining shall be provided any time these policies or procedures are changed or updated.

Site Security training is provided to applicable employees during the Employee's Orientation Training.

Section 25- Lead Awareness

Purpose

To determine and define minimum Safety Management Group requirements and responsibilities for the development and implementation of a lead exposure control program designed to protect employees from occupational hazards during the performance of work activities.

Scope

This section applies to all construction work where an employee may be occupationally exposed to lead.

Definitions

Action Level (AL) - An employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 ug/m³ averaged over an 8-hour period.

Permissible Exposure Limit (PEL) - The permissible exposure limit, or PEL, sets the maximum worker exposure to lead. No employee may be exposed to lead at airborne concentrations greater than 50 ug/m³ averaged over an 8-hour period without the appropriate personal protective equipment.

Competent Person - One who is capable of identifying existing and predictable lead hazards in the surroundings or working conditions and who has authorization to take prompt corrective measures to eliminate them.

Lead - Metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

Responsibilities

Whenever there is determined a potential for lead to be present (either the Owner provides information or we suspect possible presence of lead) the project manager and/or superintendent will require an analysis of suspect materials, i.e., structural steel, door frames, and other painted surfaces.

Procedures

Notify Safety Management Group Safety Representative for assistance in determining appropriate action following a lead hazard analysis.

No employee shall be exposed to lead at concentrations greater than fifty micrograms per cubic meter of air averaged over an 8-hour period. Safety Management Group will continuously examine an employee's exposure to airborne lead at work.

Safety Management Group will implement engineering and work practice controls to exposures above the permissible limit for more than 30 days per year.

Determine which materials that will be disturbed during demolition or renovation that may contain lead. Contact the building Owner to determine the age of the building and other important information.

Develop a written plan that identifies the suspected lead containing material to be analyzed.

Employees will not disturb any lead containing materials.

Determine if lead is present on these materials by utilizing the test kits, air monitoring and follow the specific instructions in their proper use.

Document where the above testing confirms the presence of lead.

Coordinate with the Safety Management Group Safety Representative the collection and lab analysis of samples of these materials containing lead. (Likely this will require the use of an Industrial Hygiene consultant). The lab results will provide information on the concentration of lead present.

A description of each operation in which lead is emitted should be outlined.

Develop a written plan which details what activities will disturb the lead containing material, i.e., welding, cutting, burning, manual demolition, corrosive blasting, etc.

Conduct an initial assessment utilizing an Industrial Hygiene consultant who will collect personal and general area samples of airborne concentrations of lead during each different activity that disturbs lead containing material (see Initial Assessment for details). During this collection period and prior to receiving the test results it is necessary to assume that the exposure is above the PEL. All appropriate personal protective equipment shall be used. This step may not be necessary if objective data exist (current to within twelve (12) months) that demonstrates the intended work to be performed will not generate airborne concentrations at or above the action level of 30 ug/m³ over an eight (8) hour period.

Safety Management Group does not anticipate that the type of work generally performed will create an employee exposure greater than the action level. This assumption must be verified by representative air sampling.

Performing any task noted under "Exposure Monitoring" requires that Safety Management Group communicate information concerning lead hazards according to our Hazard Communication Program including requirements of warning signs and labels, SDS's and training on the hazards and means of controlling the hazards associated with lead exposure (Review 1926.62 Appendix A).

Signs should be posted in and around work areas where there is a potential for lead exposure. These sign should not be defaced or removed.

When working on multi-contractor sites all Safety Management Group employees will be protected from potential for exposure to lead.

Exposure Monitoring

- Until the employer performs an initial exposure assessment and documents that employees are not exposed above the PEL, the employer must treat employees performing certain operations as if they were exposed above the PEL. This means providing respiratory protection, protective work clothing and equipment, change areas, hand washing facilities, biological monitoring, and training as required by the standard for the following tasks:

- abrasive blasting, rivet busting, or welding, cutting, or burning on any structure where lead-containing coatings or paint are present;
- abrasive blasting;
- cleanup activities where dry expendable abrasives are used;
- power tool cleaning;
- manual demolition of structures (i.e., dry wall), manual scraping, manual sanding, and use of heat gun where lead-containing coatings or paints are present;
- lead burning;
- using lead-containing mortar or spray painting with lead-containing paint; and
- any other task the employer believes may cause exposures in excess of the PEL.

Initial Assessment

An initial assessment is required when performing the above tasks in the presence of lead.

The purpose of this initial assessment is to determine if any employee may be exposed to lead at or above the action level.

While the initial assessment is conducted and before the actual employee exposure is determined, Safety Management Group will provide interim protection according to the following guidelines and Table 1 for Respiratory Protection:

Task:

- | | |
|--------------------------------------------------------|---------------------------------------------------|
| - For manual demolition of structures (i.e., dry wall) | - Heat gun applications |
| - Manual scraping | - Power tool cleaning with dust collection system |
| - Manual sanding | - Spray painting with lead paint |

Assume not in excess of 10 x PEL or 500 ug/m³
(Refer to Table 1 for Respiratory Protection).

Task:

- | | |
|----------------------------------------------------|-------------------------------------------------------|
| - Lead containing mortar is used | - Lead burning |
| - Rivet busting | - Power tool cleaning without dust collection systems |
| - Cleanup where dry, expendable abrasives are used | - Abrasive blasting enclosure movement and removal |

Assume exposure in excess of 500 ug/m³ but less than 1250 ug/m³

Task:

- Abrasive blasting
- Cutting and torch burning
- Welding

Assume > 2500 ug/m³ (Refer to Table 1 for Respiratory Protection)

During the initial assessment the following interim protection is required:

- Appropriate respiratory protection - refer to type of task and the assumed exposure level from above listing. Then refer to Table 1 for appropriate respiratory protection.
- Appropriate personal protective clothing and equipment will be offered to employees at no cost to prevent contamination of the employee and the employee's garments such as:
 - Coveralls or similar "full body" work clothing.
 - Gloves, hats and shoes or disposable shoe coverlets.
 - Face shields, vented goggles, or other equipment.

NOTE: Need to provide clean protective clothing weekly (daily to employees who exposure is > 200 ug/m³).

- All protective clothing is to be removed at the completion of the work shift in designated change areas and placed in a closed container to be sent for cleaning or disposal.
- Provide separate storage facilities for protective work clothing and for street clothes to prevent cross contamination. Change rooms will be provided.
- Contaminated clothing, which is to be cleaned, shall be properly labeled and the agency to clean the clothing shall be properly notified (contact your Safety Representative for specific instructions).
- No food, beverages, tobacco products or cosmetics are allowed in areas where lead exposure is present.
- Washing facilities need to be available. Showers should be provided where feasible. Employees shall wash their hands and face prior to eating, drinking, smoking, applying cosmetics, or before leaving for the day. Lunchrooms will be provided.
- Safety Management Group will make available initial medical surveillance to all employees occupationally exposed on any day to lead at or above the action level. This medical surveillance consists of blood sampling and analysis for lead and zinc protoporphyrin levels.
- While conducting the initial assessment every effort shall be made to limit the duration of work activity by any employee to one day or less.

Exceptions to requiring initial assessment testing:

- If there is lead exposure monitoring data obtained within the past 12 months during work operations conducted under workplace conditions closely resembling the process, types of material, control methods, work practices, and environmental conditions used and prevailing in the current operations the Safety Representative will determine if this data will satisfy the initial assessment testing requirements.

- If Safety Management Group has objective data, demonstrating that a particular product or material containing lead or a specific process, operation or activity involving lead cannot result in employee exposure at or above the action level during processing, use or handling, Safety Management Group may rely upon such data instead of implementing initial monitoring. Consult with the Safety Director regarding the use of objective data.

What to do when the initial assessment results are determined:

- Negative Initial Determination - If the initial assessment indicates no employees are exposed to airborne concentrations of lead at or above the action level then a written record of such determination will be made to include: date of determination, location within the worksite, and name and social security number of each employee monitored. Results will be shared, in writing with each affected employee.
- All control measures utilized during the initial assessment such as ventilation/housekeeping, and removal procedures must be maintained for the duration of the project even if the project results are less than the action level.
- A competent person will need to be aware of changes in the environment or work activity that may warrant further analysis.

NOTE: Further exposure determination need not be repeated unless there is:

- Change of equipment
- Change of process
- Change of control
- Change of personnel
- A new task
- Within 5 working days after the completion of the exposure assessment, Safety Management Group will notify each employee in writing of the results which represent that employee's exposure.
- Positive Initial Monitoring - If the air monitoring indicates any employee exposure at or above the action level, Safety Management Group will conduct monitoring which is representative of the exposure for each employee in the workplace who is exposed to lead. Results and corrective actions will be shared with each affected employee, in writing within 15 working days.
- If the initial determination reveals employee exposure at or above the action level but below the PEL, Safety Management Group will perform monitoring at least every 6 months until at least 2 consecutive measurements taken at least 7 days apart, are below the action level, at which time monitoring may be discontinued.
- If the initial determination reveals exposure above the PEL, the company will perform monitoring quarterly until at least 2 consecutive measurements taken 7 days apart, are below the PEL. If the tests remain at or above the action level then monitoring will be on a 6 month basis. If these tests are below the action level then monitoring may be discontinued. The Safety Director will make the decision on this issue.

Lead exposure exceeding the PEL

Compliance Program

Prior to each job where employee exposure exceeds the PEL, the employer must establish and implement a written compliance program to reduce employee exposure to the PEL or below. The compliance program must provide for frequent and regular inspections of job sites, materials, and equipment by a competent person. Written programs must be revised and updated at least every six months.

Engineering, Work Practice, and Administrative Controls

- The lead in construction standard requires employers to use - when feasible - engineering, work practice, and administrative controls to reduce and maintain employee lead exposure to or below the PEL. When all feasible controls have been instituted but are not sufficient to reduce employee exposure to or below the PEL, they must be used to reduce exposure to the lowest feasible level and supplemented by respirators.
- Engineering controls reduce employee exposure in the workplace either by removing or isolating the hazard or isolating the worker from exposure through the use of technology. Under the lead in construction standard, mechanical ventilation may be used to control lead exposure. If used, the employer must evaluate, as necessary, the mechanical performance of the system in controlling exposure to maintain its effectiveness.
- Work Practice controls reduce the likelihood of exposure by altering the manner in which a task is performed. Safe work practices under the lead in construction standard include but are not limited to maintaining separate hygiene facilities (i.e., change rooms, showers, hand washing facilities, and lunch areas) and requiring proper housekeeping practices (i.e., cleanup methods).

Respirators

The employer must provide respiratory protection and must ensure its use when:

- employee exposure to lead exceeds the PEL;
- engineering and work practice controls are not sufficient to reduce exposure levels to or below the PEL; or
- an employee requests a respirator.
- emergencies, time period to install/implement engineering/work practice controls

An appropriate respirator, which has been approved by the Mine Safety and Health Administration (MSHA) and NIOSH must be selected to protect against lead dust, fumes, and mists. An employee may choose this type of respirator at no extra cost to the employee.

Any Safety Management Group employee required to wear a respirator will be evaluated and trained under the Respiratory Protection Program of our Safety Program.

All required PPE will be provided at no cost to the employee. Protective clothing shall be cleaned, laundered, properly disposed and repair or replaced as necessary.

Health Effects

Common symptoms of acute lead poisoning are loss of appetite, nausea, vomiting, stomach cramps, constipation, difficulty in sleeping, fatigue, moodiness, headache, joint or muscle aches, and anemia.

Long term (chronic) overexposure to lead may result in severe damage to the blood-forming, nervous, urinary, and reproductive systems.

Medical Surveillance

Safety Management Group is required to make available medical exams, at no cost, to employees exposed at or above the action level for more than thirty (30) days per year. The blood sampling & monitoring should be conducted every 6 months until two consecutive blood samples & analysis are acceptable. The sampling & monitoring should be performed at least monthly during the removal period. The medical surveillance program must be performed by or under the supervision of a licensed physician as follows:

- at least annually for each employee whose blood lead level within the past twelve (12) months was at or above 40 ug/dl;
- when the employee has developed signs or symptoms commonly associated with lead intoxication;
- when the employee is pregnant; and
- when medically appropriate for employees removed from lead exposure due to a sustained health risk or following a final medical determination.

Medical exams must include the following information:

- detailed work and medical histories, with particular attention to past lead exposure (occupational and non-occupational), personal habits (smoking and hygiene), and past gastrointestinal, hematologic, renal, cardiovascular, reproductive, and neurological problems;
- a thorough physical exam, with particular attention to gums, teeth, hematologic, gastrointestinal, renal, cardiovascular, and neurological systems; evaluation of lung function if respirators are used;
- a blood pressure measurement; a blood sample and analysis to determine blood lead level, hemoglobin and hematocrit determinations, red cell indices, exam of peripheral smear morphology, zinc protoporphyrin, blood urea nitrogen, and serum creatinine;
- a routine urinalysis with microscopic exam; and
- any lab or other test the examining physician deems necessary.

Medical Removal Protection

Safety Management Group must remove employees with lead exposure at or above the action level each time:

- a periodic and follow-up blood sampling test indicates a blood lead level at or above 50 ug/dl; or
- a final medical determination indicates a detected medical condition that increases health risks from lead exposure.
- employees should be notified in writing within five days when lead levels are not acceptable.

Training Requirements

Safety Management Group must inform employees about lead hazards according to the requirement of OSHA's Hazard Communication standard for the construction industry, 29 CFR 1926.59, including, but not limited to, the requirements for warning signs and labels, Safety Data Sheets (SDSs), and employee information and training.

It is Safety Management Group's policy to provide a training program and ensure participation by all employees subject to exposure to lead or lead compounds at or above the action level on any day. Initial training must be provided prior to initial job assignment. Training must be repeated at least annually and must include the following:

- the content of the standard and its appendices;
- the specific nature of operations that could lead to lead exposure above the action level;
- the purpose, proper selection, fit, use, and limitations of respirators;
- the purpose and a description of the medical surveillance program, and the medical removal protection program;
- the engineering and work practice controls associated with employees' job assignments;
- the contents of the compliance plan in effect;
- instructions to employees that chelating agents must not be used routinely to remove lead from their bodies and when necessary only under medical supervision; and
- the right to access records under "Access to Employee Exposure and Medical Records," 29 CFR 1910.20 and 29 CFR 1926.62.

This training will be documented and provided in the job file and the employee's personnel file.

All materials relating to the training program and a copy of the standard must be made readily available to all employees.

Safety Management Group shall provide for the cleaning, laundering, or disposal of protective clothing and equipment.

Refer to Table 1 on the following page for Respiratory Protection from Lead Aerosols.

Table 1 - Respiratory Protection for Lead Aerosols

Airborne concentration of lead or condition of use	Required respirator¹
Not in excess of 0.5mg/m ³ . (10 x PEL)	Half mask air purifying respirator with high efficiency filters. ^{2,3}
	Half mask supplied air respirator operated in demand (negative pressure) mode.
Not in excess of 1250 mg/m ³ . (50 x PEL)	Loose fitting hood or helmet powered air purifying respirator with high efficiency filters. ³
	Hood or helmet supplied air respirator

	operated in a continuous-flow mode - e.g., type CE abrasive blasting respirators operated in a continuous-flow mode.
Not in excess of 2,500 g/m ³ .	Full facepiece air purifying respirator with high efficiency filters. ³
	Tight fitting powered air purifying respirator with high efficiency filters. ³
	Full facepiece supplied air respirator operated in demand mode.
	Half mask supplied air respirator operated in a continuous-flow mode.
	Full facepiece self-contained breathing apparatus (SCBA) operated in demand mode.
Not in excess of 50,000 g/m ³ .	Half mask supplied air respirator operate in pressure demand or other positive-pressure mode.
Not in excess of 100,000 g/m ³ .	Full facepiece supplied air respirator operated in pressure demand or other positive-pressure mode - e.g., type CE abrasive blasting respirators operated in a positive-pressure mode.
Greater than 100,000 g/m ³ unknown concentration, or fire fighting	Full facepiece SCBA operated in pressure demand or other positive-pressure mode.
¹ Respirators specified for higher concentration can be used at lower concentrations of lead. ² Full facepiece is required if the lead aerosols cause eye or skin irritation at the use concentrations. ³ A high efficiency particulate filter (HEPA) means a filter that is 99.97 percent efficient against particles of 0.3 micron size or larger.	

Section 26- Motor Vehicles and Driving Policy

The Vehicle Driving Policy applies to any Safety Management Group (Company) associate driving a Company-leased or Company -rented vehicle as well as driving a personal vehicle while on Company business. Company may provide associates with a Company-owned or Company-rented vehicle (“Company vehicle”) for certain projects. All associates driving a Company-leased, Company -rented vehicle, or personal vehicle on Company business must comply with the policies outlined in the Company driver safety program.

All new associates must complete a Motor Vehicle Report (MVR) as part of the onboarding process. In order to complete this verification, each associate or candidate who may drive a Company vehicle will complete a MVR consent form. In addition, a summary of rights under the FCRA will be supplied to the associate or candidate.

Before any associate will be allowed to drive a Company-leased or Company-rented vehicle, a new MVR will be conducted by Safety Management Group and the Company insurance carrier.

Violations discovered by Company will be reviewed on a case by case basis. Our policy contains violations that would normally result in rejection from our insurance carrier and will be used as a guideline when determining what actions to take.

1. Associates may not be issued a vehicle or drive a vehicle for Company business without the prior approval of the associate’s supervisor. Additionally, before approving a driver, the supervisor must ensure that a check of the associate’s driving record and verification of the existence of a valid driver’s license has occurred.
2. Associates whose jobs require regular driving for business as a condition of employment must be able to meet the **Driver Approval Standards** on the following pages of this policy at all times. In addition, associates holding these jobs must inform their supervisor immediately of any changes that may affect the associate’s ability to meet the standards of this policy. For example, associates who lose their licenses must report this to their supervisors immediately. Failure to report any license status changes will result in disciplinary action.
3. In addition to the above requirements, associates who drive a vehicle on Company business must exercise due diligence to drive safely and follow all traffic laws, comply with the Company **Attentive Driving Policy** outlined on the following pages, and maintain the security of the vehicle and its contents. Drivers also must ensure the vehicle meets Company and/or legal standards for insurance, maintenance, and safety. Associates are responsible for any driving infractions or fines that result from their driving and must report these infractions immediately to their supervisor.
4. Associates are not permitted, under any circumstances, to operate a Company vehicle or a personal vehicle for Company business when any physical or mental impairment causes the associate to be unable to drive safely. This prohibition includes circumstances in which the associate is temporarily unable to operate a vehicle safely or legally because of illness, medication, or intoxication.
5. Associates may use Company vehicles for non-business purposes only with prior approval of their supervisor.

6. Associates driving on Company business may claim reimbursement for parking fees, fuel and tolls actually incurred. Receipts for these out of pocket expenses must be submitted for approval. In certain situations, associates may be issued a Company credit card for fuel and maintenance services. Charges on Company issued cards must be reconciled online weekly.
7. Associates must report any accident, theft, damage, breakdown, or mechanical problem involving a Company vehicle or a personal vehicle used for Company business to their supervisor and the Vice President of Operations, regardless of the extent of damage or lack of injuries. A written report detailing the accident must be submitted to their supervisor and Vice President of Operations as soon as feasibly possible after all post-accident responsibilities have been completed with authorities and other involved parties. Associates are expected to cooperate fully with authorities in the event of an accident. However, they should not make any statements other than in reply to questions of investigating officers.
8. Associates involved in an accident while driving a Company vehicle may be asked to submit to a breathalyzer and/or a substance abuse test. Unwillingness to comply may be grounds for termination of employment.
9. Associates issued Company vehicles shall ensure all preventative maintenance has occurred at the recommend intervals provided by the manufacturer. Receipts and proof of maintenance must be submitted to the Company Enterprise Lease representative.
10. Associates are expected to keep Company vehicle interior and exterior clean.
11. Associates may be held responsible for Company vehicle repair costs, beyond normal maintenance, due to damage incurred while Company vehicle is driven by associate.
12. Company-owned vehicles will be tracked by GPS at all times. Safety Management Group has the ability to locate each vehicle in our fleet 24 hours a day. Additional information that will be tracked includes vehicle speed, aggressive driving indicators such as harsh braking, miles driven, maintenance schedules and service. Supervisors will review Company vehicle GPS metrics with lease drivers as part of the associate Performance Management process. Associates who are exceeding posted speed limits by 15 mph or more, speeding at or above 90 mph, or committing other potential violations will be contacted by a manager upon occurrence of any of the previously mentioned violations. Repeated violations may result in disciplinary action.
13. Driver and passengers must wear seatbelts at all times. Any cargo on or in motor vehicles must be evenly distributed and secured to prevent unintentional movement of the equipment.
14. Associates and passengers are not permitted to smoke in a Company vehicle.
15. Company-leased vehicles should not be parked nose forward in an open parking spot. Vehicles must be parked using one of the following methods:
 - Pulling through an open spot to access an open parking spot instead of backing into an open parking spot.
 - If vehicle is not equipped with a backup camera, utilize a passenger to act as spotter to back into a parking spot.

Driver Approval Standards:

Drivers may be disqualified for positions with Safety Management Group that require driving as a condition of employment for the following:

Driver has one or more of the following major violations within the past seven years:

1. Driving while impaired and/or under the influence of drugs and/or alcohol;
2. Criminal driving conviction such as a felony, negligent homicide, manslaughter, hit run.

Examples of other violations that may make the driver unacceptable:

1. Three or more at-fault accidents and/or moving violations in the past three years;
2. Two or more at fault accidents and/or other moving violations in the past year;
3. Driving with a revoked license;
4. Speeding in excess of 25 mph over the speed limit;
5. Reckless driving.

Our position on these drivers may depend on the circumstances involved (e.g. driving responsibilities, corrective action taken etc.).

Attentive Driving Policy

All associates operating a Company vehicle or a personal vehicle for Company business are encouraged to utilize a hands-free device to respond to incoming phone calls. All associates are prohibited from using all Mobile Electronic Devices (cellphones, laptops, tablets) to read or respond to text messages and/or emails, to search the internet, or operate apps when the vehicle is being driven. This includes while stopped in traffic or at traffic lights or stop signs. In order to respond to text messages and/or emails, associates must stop at a safe location, away from traffic, before operating the device. Navigation devices should be programmed before the vehicle is in motion.

Any associate supporting a Client with a more stringent attentive driving policy must adhere to the Client policy while supporting that Client.

Accidents

In general, these guidelines should be followed if an accident occurs:

- Associates must report traffic accidents to the local police, their supervisors and the Vice President of Operations.
- Associates must not sign or make any statements regarding responsibility or fault for a traffic accident that occurs while they are driving a Company vehicle. Associates should avoid explaining or describing the accident to anyone except public safety personnel, their supervisor, or the claims adjuster or attorney for Safety Management Group's insurance Company.
- Associates must obtain names, addresses, phone numbers, and license numbers of the other drivers involved. Associates also must collect insurance Company contact information and the address and phone number of the police department where the accident report is reported.

- If safe to do so, Associates are encouraged to take pictures of the Company vehicle and any other vehicles involved.

A printed card titled "In Case of Accident" must be kept in the glove compartment of each Safety Management Group owned vehicle. The card is intended to provide associates with easy access to guidance on what to do when accidents occur.

Discipline

Associates who drive negligently or fail to comply with this policy's safety requirements are subject to immediate discipline, up to and including termination of employment.

Associate Acknowledgement of Vehicle Driving Policy

Associate acknowledges that he/she has read and understands Safety Management Group's driver safety policy and agrees to obey the rules and requirements contained therein.

[For associates driving a noncommercial vehicle provided by employer:] Associate possesses a valid driver's license, _____ [license number], issued by _____ [state name], that expires _____ [license expiration date].

Associate name: _____

Associate signature: _____

Date: _____

Supervisor Signature: _____

In Case of Accident: Associate Guidelines

The following guidelines are intended to help you meet your obligations under the law and to Safety Management Group should you become involved in an accident while driving one of our vehicles or your own vehicle while on Safety Management Group business.

Stop! No matter how minor the accident, pull safely off the road and investigate.

Exception: If you believe your vehicle was deliberately rammed to make you vulnerable to robbery or assault, drive at once to the nearest well-lit, occupied business and call the police.

Prevent further damage and injury. If possible, drive the car out of the way of traffic. Do not leave the vehicle until it is safely out of traffic or emergency authorities have arrived to help you exit the vehicle safely. Keep yourself out of danger and take steps to prevent further accidents. This can include turning on the warning flashers of your vehicle. Ask people to keep matches and cigarettes away from the scene in case of spilled gasoline or fumes. As a general rule, you should let law officers or rescue personnel lay flares. Do not lay flares yourself since they pose a risk of fire.

Tend to injuries. Call for emergency medical personnel if anyone is hurt. If you are trained and qualified, you may render first aid.

Know what to say and do.

- ✓ Do not sign or make any statements regarding your responsibility or fault for the accident.

- ✓ Do not explain or describe the accident to anyone except public safety personnel, your supervisor, or the claims adjuster or attorney for Safety Management Group's insurance Company.
- ✓ Be courteous.
- ✓ Do not engage in arguments at the accident scene.

Collect information.

- ✓ Record essential facts while you are at the accident scene:
- ✓ Get the name, address, and driver's license number for each person involved in the accident.
- ✓ Collect vehicle registration numbers for all vehicles involved.
- ✓ Obtain insurance information for all vehicles.
- ✓ Take notes on the extent of damage to the other vehicles and the extent of injuries to people involved in the accident.
- ✓ Record the name of the responding or investigating officer and the address and phone number of the police department at which the police report will be prepared.

Report the accident. Report all accidents to the police, your supervisor and Vice President of Operations. A written report detailing the incident should be sent to the corporate office within eight hours of any incident.

Acknowledgment of Receipt of Vehicle Owner's Manual

This is to acknowledge that I have received and reviewed a copy of the owner's manual of the Safety Management Group vehicle that I will be operating. I acknowledge that I am expected to read, understand, and adhere to the safe operating instructions outlined in the vehicle's owner's manual. Additionally, I acknowledge that I am expected to review the owner's manual upon being assigned a new SMG vehicle. If I am unable to understand any part of the owner's manual, I will immediately notify my manager.

I further acknowledge and agree that disciplinary action may be taken if I do not abide by the safe operating instructions outlined in the SMG vehicle owner's manual and by rules and procedures outlined within the SMG Vehicle Driving Policy I previously signed.

Employee Signature

Date

Section 27- Personal Protective Equipment

Purpose

To specify safety requirements and policy guidance on the usage of personal protective equipment (PPE) to protect associates in the workplace.

This section is applicable to all Safety Management Group associates who perform tasks requiring PPE to include: equipment for eyes, face, head, arms, legs, clothing and protective shields. All safety equipment must meet American National Standards Institute (ANSI) Standards and shall carry markings of approval.

References

1926.28, Subpart E

Definitions

PPE - Personal Protective Equipment.

Foot and Leg Protection - Safety-toe footwear for associates shall meet the requirements and specifications in American National Standard for Men's Safety-Toe Footwear, Z41.1-1967. Examples of types of foot a leg protection include: steel-toed boots or work boots, metacarpal guards, metatarsal guards, etc.

Hand Protection - Protective gloves or glove system that will provide protection against cuts, punctures, and direct contact with chemicals including concrete.

Eye, and Face Protection - Eye and face protection for associates shall meet the requirements and specifications in American National Standards Institute, Z87.1-1968, Practice for Occupational and Educational Eye and Face Protection. Examples include: glasses, goggles, face shields, welding hood, etc.

Head Protection - Head protection for associates shall meet the requirements and specifications in American National Standards Institute, Z89.1-1969, Safety Requirements for Industrial Head Protection.

Procedures

PPE Analysis

- Administrative and Engineering controls will be the first priority (where applicable) to avoid using PPE.
- A hazard assessment will be completed to determine what PPE will be required.

Eye and Face

- Safety glasses with side shields are to be worn in all manufacturing areas as well as whenever else there is a hazard present to the eyes. Associates who wear prescription glasses, must have eye protection that meets ANSI Z87.1 Standards.
- Associates must use eye and face protection when they are exposed to hazards such as flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. The protective equipment must be marked to identify the manufacturer.

- Protective eye and face devices bought after July 5, 1994 must comply with ANSI Z87.1 - 1989, "American National Standard Practice for Occupational and Educational Eye and Face Protection."
- Equipment bought before July 5, 1994 must comply with ANSI Z87.1-1968, "USA Standard for Occupational and Educational Eye and Face Protection."
- In general, eye protection and face shields must be appropriate for the particular hazards to which the associates are exposed. Visors are appropriate for those operations where splashing is a hazard. In high heat environments, a special wire screen visor may be worn that allows the heat to dissipate and permits maximum vision for the wearer. Goggles are recommended in situations involving dust, flying particles, sparks, noxious gases, corrosive liquid splashes, and radiation from welding.
- Cup goggles provide added protection where there is the combined hazard of flying particles and severe impact. Some cup goggles also provide ventilation, protection against dust hazards in cement plants, foundries, and compressed air operations. When worn in conjunction with a face shield, cup goggles provide good protection against acids, caustics, and chemicals, and are recommended for babbitting, hot metal casting, and hot metal bath dipping. Face shields are not recommended for use by themselves as basic eye protection since they do not provide impact protection; instead they should be worn over basic eye protection.
- Eye and face equipment should be comfortable, easy to clean, and capable of being disinfected. The fit must be snug enough to protect properly and not restrict the movement of the wearer.
- Eye protection should be cleaned regularly and checked daily for cracks, scratches, pits, or fading. Badly chipped, scratched, or pitted lenses indicate that the surface is broken and should not be used. Safety glasses should be evaluated periodically to ensure that the optical density provided is still at the desired wavelength.
- In addition to providing associates with appropriate eye protection, easily accessible emergency eyewash stations should be provided.

Head

- Hard hats are to be worn whenever there is a danger of falling objects from above. Hard hats are to be worn with the bill protecting the face and in accordance with pertinent safety standards.
- Hard hats bought after July 5, 1994 must comply with ANSI Z98-1986, "American National Standard for Personal Protection - Protective Headwear for Industrial Workers-Requirements."
- Hard hats purchased before July 5, 1994 must comply with the ANSI Z98.1-1969, "American National Standard Safety Requirements for Industrial Head Protection."

Foot

- Steel toed boots are not mandatory, but are recommended. Work boots are a minimum.
- Protective footwear purchased after July 5, 1994 must comply with ANSI Z41-1991, "American National Standard for Personal Protection - Protective Footwear." Protective footwear purchased before July 5, 1994 must comply with ANSI Z41.1-1967, "USA Standard for Men's Safety-Toe Footwear."

Hand

- Various types of gloves may be required. Hazards from which hands need to be protected include skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns, and harmful temperatures.

Hearing Protection

- Associates shall not be exposed to more than an average of 90 dB over an 8 hour period and hearing protection is required when noise is above 85 dB.
- Associates will be informed of the areas where hearing protection is required.
- Associates wearing hear protection must stay aware of the environment around them.

Protective Clothing

- Associates are to wear appropriate clothing for the tasks being preformed.
- Associates who wear jewelry are to use caution around moving machinery.
- Associates are to wear shirts with sleeves and pants that cover the legs.
- In the warm weather associates should wear light colored clothing that allow the skin to stay cool.
- In the colder weather associates are to wear warm layers of clothing.
- Fire resistant clothing will be provided to associates when required to be worn by an owner.

All PPE must be maintained in a clean and sanitary condition.

All employee owned PPE shall comply with all applicable standards.

All PPE shall fit properly and any defective PPE shall be immediately removed from service.

Training

Employees will be trained in the proper use, selection and care of all PPE.

Retraining will occur when employees show the knowledge or skill to properly use PPE.

All training will be documented in the employee's profile.

Section 28- Process Safety Management

Purpose

This section contains requirements for preventing or minimizing the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemicals. These releases may result in toxic, fire or explosion hazards.

Scope

This policy applies to associates performing maintenance or repair, turnaround, major renovation, or specialty work on or adjacent to a covered process.

Definitions

"Atmospheric tank" means a storage tank which has been designed to operate at pressures from atmospheric through 0.5 p.s.i.g. (pounds per square inch gauge, 3.45 Kpa).

"Boiling point" means the boiling point of a liquid at a pressure of 14.7 pounds per square inch absolute (p.s.i.a.) (760 mm.). For the purposes of this section, where an accurate boiling point is unavailable for the material in question, or for mixtures which do not have a constant boiling point, the 10 percent point of a distillation performed in accordance with the Standard Method of Test for Distillation of Petroleum Products, ASTM D-86-62, which is incorporated by reference as specified in Sec. 1910.6, may be used as the boiling point of the liquid.

"Catastrophic release" means a major uncontrolled emission, fire, or explosion, involving one or more highly hazardous chemicals, that presents serious danger to associates in the workplace.

"Facility" means the buildings, containers or equipment which contain a process.

"Highly hazardous chemical" means a substance possessing toxic, reactive, flammable, or explosive properties and specified by paragraph (a)(1) of this section.

"Hot work" means work involving electric or gas welding, cutting, brazing, or similar flame or spark-producing operations.

"Normally unoccupied remote facility" means a facility which is operated, maintained or serviced by associates who visit the facility only periodically to check its operation and to perform necessary operating or maintenance tasks. No associates are permanently stationed at the facility. Facilities meeting this definition are not contiguous with, and must be geographically remote from all other buildings, processes or persons.

"Process" means any activity involving a highly hazardous chemical including any use, storage, manufacturing, handling, or the on-site movement of such chemicals, or combination of these activities. For purposes of this definition, any group of vessels which are interconnected and separate vessels which are located such that a highly hazardous chemical could be involved in a potential release shall be considered a single process.

"Replacement in kind" means a replacement which satisfies the design specification.

"Trade secret" means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it. Appendix D contained in 1910.1200 sets out the criteria to be used in evaluating trade secrets.

Responsibilities

Owners shall inform Safety Management Group associates of the known potential fire, explosion, or toxic release hazards related to the work and the process.

Owners shall explain to Safety Management Group associates the applicable provisions of the emergency action plan.

The Owner shall develop and implement safe work practices to control the entrance, presence and exit of contract employers and contract associates in covered process areas.

Safety Management Group shall assure that each contract associate is trained in the work practices necessary to safely perform his/her job.

Safety Management Group shall assure that each contract associate is instructed in the known potential fire, explosion, or toxic release hazards related to his/her job and the process, and the applicable provisions of the emergency action plan.

Safety Management Group shall document that each contract associate has received and understood the training required by this paragraph. The contract employer shall prepare a record which contains the identity of the contract associate, the date of training, and the means used to verify that the associate understood the training.

Safety Management Group shall assure that each contract associate follows the safety rules of the facility including the safe work practices.

Safety Management Group shall advise the employer of any unique hazards presented by their work, or of any hazards found by their work.

The Owner may require personnel to whom the information is made available enter into confidentiality agreements not to disclose the information.

Employees and their designated representatives must have access to trade secret information contained within the process hazard analysis and other documents required to be developed by this policy.

Procedures

Pre-startup safety review

- Owner shall perform a pre-startup safety review for new facilities and for modified facilities when the modification is significant enough to require a change in the process safety information.
- The pre-startup safety review shall confirm that prior to the introduction of highly hazardous chemicals to a process:
 - Construction and equipment is in accordance with design specifications;

- Safety, operating, maintenance, and emergency procedures are in place and are adequate;
- For new facilities, a process hazard analysis has been performed and recommendations have been resolved or implemented before startup; and modified facilities meet the requirements contained in management of change.
- Training of each associate involved in operating a process has been completed.

The owner shall establish and implement written procedures to maintain the on-going integrity of process equipment.

Inspections and tests shall be performed on process equipment.

The owner shall correct deficiencies in equipment that are outside acceptable limits before further use or in a safe and timely manner when necessary means are taken to assure safe operation.

In the construction of new plants and equipment, the owner shall assure that equipment as it is fabricated is suitable for the process application for which they will be used.

The owner shall issue a hot work permit for hot work operations conducted on or near a covered process.

The owner shall establish and implement written procedures to manage changes (except for "replacements in kind") to process chemicals, technology, equipment, and procedures; and, changes to facilities that affect a covered process.

Associates involved in operating a process and maintenance and contract associates whose job tasks will be affected by a change in the process shall be informed of, and trained in, the change prior to start-up of the process or affected part of the process.

All near misses and incidents must be immediately reported to Safety Management Group and the Owner. The owner will investigate each incident which resulted in, or could reasonably have resulted in a catastrophic release of highly hazardous chemical in the workplace. Incident investigations must be initiated within 48 hours. Corrective actions will be documented and maintained 5 years.

The owner shall establish and implement an emergency action plan for the entire plant in accordance with the provisions of 29 CFR 1910.38(a). In addition, the emergency action plan shall include procedures for handling small releases. Owners covered under this standard may also be subject to the hazardous waste and emergency response provisions contained in 29 CFR 1910.120(a), (p) and (q).

Owners shall certify that they have evaluated compliance with the provisions of this section at least every three years to verify that the procedures and practices developed under the standard are adequate and are being followed.

Owners shall make all information necessary to comply with the section available to those persons responsible for compiling the process safety information, those assisting in the development of the process hazard analysis, those responsible for developing the operating procedures, and those involved in incident investigations, emergency planning and response and compliance audits without regard to possible trade secret status of such information.

Safety Management Group Associates will follow the Owner's safe work practices during operations such as Lockout/Tagout, Confined Space entry, opening process equipment or piping and controls over entrance to facility.

Training Requirements

The employer shall train each associate involved in maintaining the on-going integrity of process equipment in an overview of that process and its hazards and in the procedures applicable to the associate's job tasks to assure that the associate can perform the job tasks in a safe manner.

Safety Management Group associates performing such work will need additional training before working in such areas.

Section 29- Respiratory Protection

Purpose

To protect associates from harmful exposure to dusts, fumes, mists, gases, smokes, sprays, or vapors, when all other engineering or administrative controls are either not feasible or have failed.

Scope

This procedure applies to all Safety Management Group operations and associates who may be required to use respiratory protection in the course of their employment.

Definitions

Respiratory Hazards - The normal atmosphere consists of 78% nitrogen, 21 % oxygen, 0.9% inert gases and 0.04% carbon dioxide. An atmosphere containing toxic contaminants, even at very low concentrations, could be a hazard to the lungs and body. A concentration large enough to decrease the percentage of oxygen in the air can lead to asphyxiation, even if the contaminant is an inert gas.

Oxygen Deficiency - The body requires oxygen to live, if the oxygen concentration decreases, the body reacts in various ways. Death occurs rapidly when the concentration is decreased to 6%.

- Physiological effects of oxygen deficiency are not apparent until the concentration decreases to 16%. The various regulations and standards dealing with the respirator use recommends that concentrations ranging from 16 - 19.5% be considered indicative of an oxygen deficiency. Such numbers take into account individual physiological response, errors in measurement, and other safety consideration. In hazardous material response operations 19.5% oxygen in air is considered the lowest "safe" working concentrations.

- An oxygen-enriched atmosphere is also recognized not only as a physical hazard but an explosion hazard. Enriched oxygen atmospheres increase the likelihood of combustion and possible explosion, therefore, Safety Management Group, will not place associates in these areas.

Aerosols - Aerosol is a term used to describe fine particulates (solid or liquid) suspended in air. Particulates ranging in diameter from 50 to 30 microns are deposited in the nasal and pharyngeal passages. The trachea and smaller conducting tubes collect particulates 1-5 microns in diameter. For particulates to diffuse from the bronchioles into alveoli they must be less than 0.5 microns in diameter. Larger particulates reach the alveoli due to gravity. The smallest particulates may never be deposited in the alveoli and so may diffuse back into the conducting tubes to be exhaled.

- Aerosols can be classified in two ways: by their physical form and origin and by the physiological effect on the body.

Physical Classification:

- Mechanical Dispersoid: liquid or solid particle mechanically produced.
- Condensation Dispersoid: liquid or solid particle often produced by combustion.

- Spray: visible liquid mechanically dispersed.
- Fume: extremely small solid condensation Dispersoid.
- Mist: liquid condensation Dispersoid.
- Fog: mist dense enough to obscure vision.
- Smoke: liquid or solid organic particles resulting from incomplete combustion.
- Smog: mixture of smoke and fog.

Physiological Classification:

- Nuisance: no lung injury but proper lung functioning inhibited.
- Inert Pulmonary Reaction Causing: non-specific reaction.
- Pulmonary Fibrosis Causing: effects ranging from nodule production in lungs to serious diseases such as asbestosis
- Chemical Irritation: irritation, inflammation, or ulceration of lung issue.
- Systemic Poison: diseases in other parts of the body.
- Allergy-Producing: allergic hypersensitivity reactions such as itching or sneezing.

Gaseous Contaminants: Gases and vapors are filtered to some degree through the respiratory tract. Soluble gases and vapors are absorbed by the conducting tubes in route to the alveoli. Not all will be absorbed and so along with insoluble gases, finally diffuse into the alveoli, where they can be directly absorbed into the bloodstream. Gaseous contaminants can be classified chemically and physiologically.

Chemical Classification:

- Acidic: acids react with water to form acids.
- Alkaline: bases react with water to form bases.
- Organic: compounds which may range from methane to chlorinated organic solvents.
- Organometallic: organic compounds containing metals.
- Hydrides: compound in which hydrogen is bonded to another metal.
- Inert: no chemical reactivity.

Physiological Classification:

- Irritants: corrosive substances which injure and inflame issue.
- Asphyxiant: substances that displace oxygen or prevent the use of oxygen in the body.
- Anesthetics: substances that depress the central nervous system, causing a loss of sensation or intoxication.
- Systemic Poisons: substances that can cause disease in various organ systems.

Procedures

General

- When working in areas where the potential exists for overexposure to air contaminated with harmful dusts, fogs, mists, gases, smokes, sprays, or vapors, associates will be required to wear the appropriate respirator.
- The safety representative will administer this program for Safety Management Group
- Associates must be clean-shaven if they are required to wear respiratory protection as part of their job requirements.
- Associates may be required to wear respiratory protection as part of their job, must be medically qualified by a physician to do so. Because of this, pulmonary function tests will be required for each associate.
- Associates that are required to wear a respirator will be provided with a respirator at no expense.

Hazard Identification

- All job classifications, operations and/or areas where respiratory protection devices must be used to prevent associate overexposure against specific health risks will be identified. This may be accomplished by one more of the following:
 - Review of company operations, processes and procedures.
 - Industrial hygiene monitoring results.
 - Information contained on Safety Data Sheets (SDS).

Types of Respiratory Protection Available

- *Air Supplying*
 - Air line supplied: (SAR) means an atmosphere supplying respirator for which the source of breathing air is not designed to be carried by the user.
 - Self Contained Breathing Apparatus (SCBA) means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.
- *Air Purifying*
 - Air purifying respirators only "purify" contaminants from the ambient air. They add NO oxygen. Because of this, air purifying respirators can only be used when the identify and concentration of the contaminant is known, the oxygen content in the air is at least 19.5%, there is no periodic monitoring of the work area, the respirator assembly is approved for protection against the specific contaminant and concentration level, and the type of respirator has been fit-tested on the associate.
 - Filtering Facepiece Respirators: A negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Approved disposable filtering facepiece respirators provide protection against nuisance dusts and sometimes asbestos. It is difficult to fit test, obtain, and maintain a good facepiece to face seal.

- Half-Mask Respirators: Two cartridges are used to filter the air and discarded once the use of limits are reached. The half-mask respirators have approved cartridges for pesticides, organic vapors, dusts, mists, fumes, acid gases, ammonia, and several combinations.
- Full-Face Respirator: The entire face is protected by this form of respirator. It gives 10 times the protection of a half-mask. The full-faced mask also uses cartridges or canisters which filter out hazardous contaminants from the air. Filters are available for the same materials as for the half-mask, with several additional ones available.
- Powered Respirators: Powered respirators give no breathing resistance. They are used with half or full-face masks, and special helmets.

Selection

- Potential areas of exposure previously identified shall be reviewed by the Safety representative to determine appropriate respiratory protection.
- Proper selection of respiratory protection will be made only by a competent person, who has been trained on the specific hazards and the requirements of the standard. Respirators shall be selected only after each of the following has been considered:
 - Identity of the substance(s) present in the work environment.
 - The physical state of the contaminant.
 - The PEL and toxicity of the substance.
 - Exposure measurements showing the concentrations likely to be encountered.
 - The protection factor listed for the respirator.
 - The possibility of an oxygen deficient atmosphere.
 - Any limitations or restrictions applicable to the types of respirators being considered.
- Selection of respirators shall be made in accordance with the following table:

HAZARD	RESPIRATOR
Oxygen Deficiency	Self-contained breathing apparatus. Hose mask with blower. Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm
Gas and vapor contaminants immediately dangerous to life and health	Self-contained breathing apparatus. Hose mask with blower. Air-purifying, full facepiece respirator with chemical canister (gas mask). Self-rescue, mouthpiece respirator (for escape only). Combination, air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.

Not immediately dangerous to life and health	Self-contained breathing apparatus. Hose mask with blower. Air-purifying, half-mask or mouthpiece respirator with chemical cartridge.
Particulate contaminants immediately dangerous to life and health	Self-contained breathing apparatus. Hose mask with blower. Air-purifying, full face-piece respirator with appropriate filter. Self-rescue mouthpiece respirator (for escape only). Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.
Not immediately dangerous to life and health	Air-purifying, half-mask or mouthpiece respirator with filter pad or cartridge. Air-line respirator. Air-line abrasive-blasting respirator. Hose-mask without blower.
Combination gas, vapor, and particulate contaminants immediately dangerous to life and health	Self-contained breathing apparatus. Hose mask with blower. Air-purifying, full facepiece respirator with chemical canister and appropriate filter (gas mask with filter). Self-rescue mouthpiece respirator (for escape only). Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.
Not immediately dangerous to life and health	Air-line respirator. Hose mask without blower. Air-purifying, half-mask or mouthpiece respirator with chemical cartridge and appropriate filter.

- Identification of gas mask canisters for half or quarter mask respirators being used can be determined on the label or the color-coding scheme as described in the OSHA standards.

Use

- When SCBAs or hose masks with blowers are used in IDLH atmospheres, attendants must be present with suitable rescue equipment.
- Persons using air line respirators in IDLH atmospheres shall be equipped with safety harnesses and lifelines for lifting or removing persons from hazardous atmospheres. Attendants must also be used.
- Associates required to wear respiratory protection must be clean-shaven, as facial hair will not allow a proper seal.
- Employees must leave the respirator use area if they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece.
- Every respirator wearer shall perform the following test before using the respirator:
 - Close off the inlet ports of the respirator with the palms.
 - Inhale so that the face piece collapses slightly and hold breath for 10 seconds. If the face piece remains collapsed and no inward leakage is noticed, the fit is considered tight adequate.

Voluntary Use When Respirator Is Not Required

- Associates may be provided with a respirator or permitted to use a respirator, if determinations that such respirator use will not in itself create a hazard.
- An Associate that has decided to wear a respirator where none is required is prohibited from using a respirator type that has not been approved for use by their Manager.
- Associates voluntarily using other air purifying respirators (e.g. an elastomeric respirator, a tight-fitting, air-purifying respirator with replaceable filters, cartridges, or canisters) are expected to comply with the requirements outlined in the medical evaluation, respirator use, cleaning, inspection and storage sections of this program. These Associates must also receive the information in 1910.134, Appendix D.

Filtering Facepiece Respirators

- Filtering facepiece respirators may be allowed even when a hazard assessment determines that no hazard exists.
- Associates voluntarily using a filtering facepiece respirator are expected to comply with the requirements outlined in respirator use, inspection and storage sections of this program. These Associates must also receive 1910.134, Appendix D.
- Neither filtering facepiece respirators nor disposable dust masks require medical evaluation or fit testing.
- Filtering facepiece respirators and disposable dust masks should be disposed in the trash when the mask's outside surface is discolored.

Medical Evaluations

- Safety Management Group shall provide a medical evaluation to determine the associate's ability to use a respirator before the associate is fit tested or required to use the respirator. **Appendix C to Sec. 1910.134: OSHA Respirator Medical Evaluation Questionnaire (Mandatory)**
- Medical Evaluation Procedures
 - Identify a physician or other licensed health care professional (PLHCP) to perform medical evaluations using a medical questionnaire.
 - The medical evaluation shall obtain the information requested by the questionnaire.
 - The medical questionnaire and examinations shall be administered confidentially during the associate's normal working hours or at a time and place convenient to the associate.
 - The medical questionnaire shall be administered in a manner that ensures that the associate understands its content.
- Supplemental information for the PLHCP

- This information must be supplied to the PLHCP before the PLHCP makes a recommendation concerning the associate's ability to use a respirator.
 - The type and weight of the respirator to be used by the associate.
 - The duration and frequency of respirator use (including use for rescue and escape).
 - The expected physical work effort.
 - Additional protective clothing and equipment to be worn.
 - Temperature and humidity extremes that may be encountered.
- Any supplemental information provided previously to the PLHCP regarding an associate need not be provided for a subsequent medical evaluation if the information and the PLHCP remain the same.
- Safety Management Group shall provide the PLHCP with a copy of the written respiratory protection program and a copy of this section.
- Additional Medical Evaluations
 - At a minimum, Safety Management Group shall provide additional medical evaluations that comply with the requirements of this section if:
 - An associate reports medical signs or symptoms that are related to ability to use a respirator.
 - A PLHCP, supervisor, or the safety representative informs Safety Management Group that an associate need to be reevaluated.
 - Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need to associate reevaluation.
 - A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an associate.

Training

- Training will be performed for those associates who may be required to wear respirators as part of their normal job. This training shall include at a minimum:
 - Nature of the respiratory hazard and what may happen if the respirator is not used properly.
 - Engineering and administrative controls being used and the need for the respirator as added protection.
 - Reason for the selection for a particular respirator.
 - Proper use and limitations of the respirator.
 - Proper maintenance and storage.
 - Proper method for handling emergency situations.

Fit-Testing

Employees must pass either a qualitative or quantitative fit test prior to initial use, if a different respirator is used and annually thereafter.

- Qualitative: A pass/fail test to assess the adequacy of respirator fit that relies on the individual's response to the test agent. This type of fit testing is not as dependable

because of its qualitative nature. Accurate results rely on the individual being tested. Each individual being tested has different sensory levels for detection of a smell or a taste. Irritant smoke may be considered the best option for qualitative testing but it can cause respiratory problems in some individuals who are more sensitized.

- Saccharin
- Associate must choose proper mask
- Perform a negative or positive fit check
- Attach HEPA filters to chosen face mask
- Allow the user to smell a weak concentration of the saccharin
- In a fit testing hood:
 - Activate saccharin nebulizer
 - Begin with only a small amount of smoke
 - Allow user to adjust the mask if they smell smoke
 - Slowly add more smoke and ask the test subject to perform the following for one minute each:
 - Normal breathing
 - Deep breathing
 - Grimace
 - Turn head side-to-side while breathing normally
 - Nodding head up-and-down while breathing normally
 - Talking (Rainbow Passage)
 - Jogging in place
 - Normal breathing

RAINBOW PASSAGE

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and b who ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow.

- If the test subject does not smell saccharin, they have passed the test and can be allowed to wear that in approved atmospheres.
- Fill out test form and card.
- Quantitative: An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator. Relies on a sensitive device inside the face piece, which records actual numerical levels of contaminant inside and outside of the respirator.

Maintenance and Care

- Inspection
 - Respirators must be inspected regularly (during cleaning and on a monthly basis) and all worn or defective parts shall be replaced. Respirator inspection shall include, but will not be limited to:
 - Inspect the inside sealing surface for cracks or distortions (if they are found, the face piece must be disregarded);

- The valves must be inspected for severe distortion which would cause them not to seal properly (faulty valves must be replaced);
 - If headbands are severely overstretched, frayed or mutilated, they must be replaced;
 - Inspect to insure that the filter element is secured tightly to the face piece.
- Respirators shall be inspected routinely before and after each use.
- SCBA's are inspected on a monthly schedule.
- Inspection records shall be kept and documented on the forms provided. (See Inspection & Maintenance Check List)
- Cleaning
 - Routinely used respirators shall be collected, cleaned and disinfected as frequently as necessary to insure the respirator is clean and in good operating condition. Specific information and procedures for cleaning and disinfecting of respirators is included at the back of this section.
- Repair
 - Replacement or repair shall be done only by experienced persons with parts designed for the respirator.
- Storage
 - Shall be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals.
 - Store the respirator so that the facepiece and exhalation valves rest in a normal position. Do not hang the respirator by its straps.
 - Respirators placed at workstations for emergency use should be quickly accessible at all times and stored in compartments built for that purpose. The compartments should be clearly marked.
- Program Monitoring
 - Respiratory protection program will be monitored by the Safety representative on each project as part of the quarterly inspection.
 - The Safety representative will review this program at least annually to determine any needed changes or updates.

Section 30- Risk Assessment

Purpose

"Hazard assessment" is the process (required by law) of identifying the hazards associated with defined task, prescribing personal protective equipment and other relevant protection measures which must be employed to reduce the risk from the hazards. "Certification of Hazard Assessment" is a written document -- such as the one on the following 2 pages -- detailing the hazard assessment(s) for (a) particular task(s). The supervisor is responsible for ensuring that hazard assessments are performed and the certification(s) written and posted. The supervisor may delegate or contract the labor involved in this process, but cannot reassign or disclaim the responsibility.

Procedures

- The hazard assessment tool is designed to identify existing and potential workplace hazards and assess the risk of associated workers injury and illness. Then list preventative actions to minimize exposure and prevent injuries. The "Certification of Hazard Assessment" form will be used to document this assessment.
- Safety Management Group employees performing the work activity will be actively involved in the hazard identification process by participating in the hazard assessment prior to actual work begins.
- List job steps and identify possible hazards associated with each phase of work:
 - Include each step
 - Describe each step in adequate detail
 - Identify any machinery or exposures that could create risk of injury
 - Note procedures to follow for hazardous work (lockout/tagout, confined space entry, fall protection, etc.)
 - Include hazards created while performing job - dust, chemical, heat, and noise
 - Determine best way to eliminate identified hazards
 - Fix clear-cut problems, such as replacing missing machine guards
 - Seek ways to eliminate
 - Ensure all hazards are communicated to employees and subcontractors
- Identify serious hazards associated with each phase and include safe working procedures.
 - Is there adequate lighting?
 - Could people trip over materials on the floor?
 - Are there live electrical wires?
 - Are tools, machines and other equipment in good repair?

- Do machines have guards in place?
 - Are noise levels high enough to interfere with communication?
 - Are fire alarms and portable extinguishers readily available?
 - Are emergency exits clearly marked?
 - Is personal protective equipment available, in good condition, and used when necessary?
 - Is the work area ventilated?
 - Is there adequate protection to the public?
- **It must be modified to meet the specific hazards of your work area.** This includes removing or adding hazards as applicable to your work area.
 - All identified hazards must be mitigated through the hierarchy of controls: elimination, substitution, engineering controls, administrative controls/work practices, or personal protective equipment.
 - The individual completing the hazard assessment will ensure all hazards are mitigated before work begins and review the method of mitigation with affected employees. This will be documented on the "Certification of Hazard Assessment" form.
 - Evaluate the risks – Both the probability of occurrence and severity of effects for each hazard needs assessed. A judgment needs to be made about the probability of a hazard resulting in an emergency event and the severity of the consequences if the situation did happen. The "Hazard Risk Matrix" can be used to record a risk rating for each hazard in the terms high, medium, and low.
 - To use the assessment several concepts must be understood.
 - 1) Hazard – Any situation that has potential to cause damage.
 - 2) Probability – Likelihood that the particular hazard will result in damage at this location.
 - 3) Severity – An estimation of how serious the potential problem might be in terms of harm to people and/or damage to property.
 - Certification(s) of hazard assessments **must be posted** -- tacked or hung in a visible place -- in every work room listed in the "location(s)" field.

Training

A Hazard Assessment will be conducted by trained individuals. This policy will be reviewed during new hire orientation and annually thereafter.

Section 31- Safety Orientation

Purpose

All new associates shall be given an orientation prior to beginning work for Safety Management Group

Definitions

Annual Re-Orientaion - In conjunction with the calendar year, a follow-up orientation with the Safety Representative and all current associates.

New Hire Orientation - Sets the Safety Management Group safety foundation. It will present general information that will be addressed and reinforced in more detail throughout the orientation process.

Procedures

Within the first day of work, the Human Resource Manger will provide an orientation to all new associates. The Associate Orientation Form shall be completed and signed by both the associate and the Safety Representative. The completed form will detail specific policies discussed and become part of the associate's personnel file.

During the new-hire orientation a review of specific safety procedures and requirements as well as task specific hazards and controls that the new associate needs to understand. Topics include:

- Hazardous elements specific to the workplace, including hazardous materials, machinery, or noise.
- Hazard control measures such as administrative or engineering controls, safe operating procedures and personal protective equipment.
- Emergency response procedures, evacuation routes, and access to medical assistance.

Items to be covered during the orientation include all policies from safety program as listed in the table of contents.

After the initial orientation all associates will attend the refresher orientation meeting annually to confirm original training and to confirm any changes occurring during the year.

Section 32- Safety Training and Education

Purpose

To ensure that associates understand established safety and health policies and procedures as mandated by the company or OSHA. Associates should be well trained on these safety responsibilities and the reasons for them, including:

- Analyzing the work under their supervision to identify unrecognized potential hazards;
- Maintaining physical protection in their work areas;
- Reinforcing associate training on the nature of potential hazards and on needed protective measures, through performance feedback and enforcement of safe work practices.

Each full-time associate has access to training and development funds for use in attending seminars, conferences, or other training pursuits. These training funds renew each January 1st. Contact your Manager/Supervisor to learn more about funds available to you for training and development.

To access your training fund, you are asked to forward a request to your Manager/Supervisor for approval. When submitting a training event, you must:

- Provide a minimum of two weeks advance notice (prior to departure date). If there is a fee associated with late registration, submittal must be two weeks prior to the early enrollment cut-off date.
- An email confirmation of how your site/work activities will be covered, and by whom.
- Estimated cost of the trip, including airline or mileage, hotel, rental car (if necessary), enrollment cost, and all other incidental expenses. While the Managers remain ultimately accountable, it is responsibility of the individual consultant to assist by selecting the most economical means for training/travel.
- A brief explanation of how the training will be beneficial to you, the client, and Safety Management Group.

Other points to consider:

- When selecting a training location, first look for locations closest to the Midwest. Requests for locations that are considered "vacation" spots will not be approved without documentation of business/professional development needs.
- Look for more intensive and/or hands-on training opportunities.
- Ensure your requests for training are in alignment with either your current position or your future professional development with Safety Management Group.
- Requests to attend a certification preparation workshop will not be approved unless the appropriate application has been submitted and approved. In short, you have to be "pre-approved" to sit for the test upon your return.

Within two weeks upon your return from training, you will be required to submit to your manager a short synopsis detailing your training experience, including overall value and learning points which will be used in your job activities and in providing service to our client.

Restrictions:

- A portion of every Safety Management Group associate's training budget is utilized to fund Staff Development Days. Typically this amount is not more than \$500.00 per year.
- Safety Management Group will not be responsible for reimbursing any expenses associated with non-associates traveling with associates to overnight training events.

Section 33 - Short Service Employees

Purpose

The purpose of this Short Service Employees (SSE) Plan is to ensure Safety Management Group employees with less than six months experience (in new job type) are identified, adequately supervised, trained and managed so as to prevent injury to them, others, property or the environment.

Scope

This policy applies to all Safety Management Group employees with less than six months experience.

Definitions

Short Service Employee - An employee is generally considered a "Short Service Employee" if he/she has less than 6 months experience with his/her present employer, or in his/her present role.

Procedures

A Short Service Employee will not work alone. A work crew of less than 5 employees may not have more than one Short Service Employee.

Nine Point Plan for SSE:

- Any Safety Management Group employee with less than 6 months service in the same job/position within his/her present area will be considered a Short Service Employee (SSE). An employee who has received proper training and is certified in their present position is classified as a Non-SSE employee.
- Non-SSE Safety Management Group employees who are new to a location should be considered by the Area Manager for inclusion in the SSE program based on the specifics of their assignment. Factors to consider include significant differences in:
 - Job Responsibilities/duties from previous assignments
 - Work Processes/practices from previous assignments
 - Equipment/tools from previous assignments
 - Skill level, familiarity with co-workers

The Area Manager will notify the host employer should there be an SSE located on their jobsite or in training. The project coordinator, contractor contact, or on-site supervisor will determine approval status of the crew makeup. The customer location supervisor must approve SSE personnel. Following are Safety Management Group SSE crew requirements:

- Crews with 4 persons or less:
 - Single person "crew" cannot be a SSE
 - 5 person crews can have only 1 SSE per crew.

Exceptions to these "small crew" requirements require customer Operational Manager variance approval.

- Crew with 5 persons or more:
 - Crew complements should not exceed 20% SSE.
 - Crew complements that are greater than 20%, but less than 30% shall only be permitted with documented approval of the customer's location supervisor and Operations Manager concurrence.

- Crew complements that exceed 30% shall only be permitted with written variance approval by the Operations Manager with Site Director notification.

For purpose of this policy, a crew is defined as those employees working at a single location and is employed by Safety Management Group.

- All SSE personnel must attend a location-specific safety orientation prior to beginning work on location. Applicable customer and Safety Management Group safety policies shall be discussed during orientation.
- All SSE personnel must be assigned an experienced mentor (competent person) to assist the employee during his/her SSE period. It is the mentor's responsibility to closely supervisor the assigned SSE and prevent him/her from performing tasks for which they are not properly trained. They can only mentor one SSE at a time on a crew.
- SSE Personnel will be identified by the following method:

A visible Safety Management Group sticker placed on his/her hard hat which must include the letters "SSE". The sticker should be of contrasting color to the hard hat and be at least 2" X 3" in size and oval in shape.

- To be removed from SSE status, an employee must exhibit safe work practice and behavior until the end of their training process. (e.g. incident free performance, proactive participation in Safety Training Programs such as incident reporting including near misses, job hazard analysis development, safety meetings, Job Procedures, First Aid and etc.) All required training will be checked off by the trainer and the certifications will be forwarded to the Compliance Manager.
- Safety Management Group employees who do not qualify for release from SSE status after 6 months may continue work on a Safety Management Group location only with the documented approval of the Compliance Manager.
- Should Safety Management Group hire a sub-contractor they will manage the sub in alignment with this process.
- Subcontractors must manage their Short Service Employees in accordance with the requirements of the Short Service Employee program.

Short Service Employees shall be monitored for compliance with health, safety, and environmental policies and procedures. Once the Short Service Employee has demonstrated competency and compliance with HSE policies and procedures, the contractor may remove the hi-visibility identifier.

Training Requirements

All employees shall be trained before initial job assignment

Section 34 - Stop Work Authority

Purpose

It is the policy of Safety Management Group that all employees have the authority, responsibility, and obligation to stop any task or operation where concerns or questions regarding the control of health and safety risk exists. No work will resume until all stop work issues and concerns have been adequately addressed and any form of retribution or intimidation directed at any individual or company for exercising their authority as outlined in this program will not be tolerated.

Defined-Stop Work Authority establishes the **“authority and obligation”** of any individual to suspend a single work task or group operation when the control of Environmental Safety and Health risk is not clearly established or understood. In general terms the process involves a stop, notify, correct, and resume approach for the resolution of a perceived unsafe condition, act, error, omission, or lack of understanding that could result in an undesirable event.

Reporting

Stop work interventions shall be formally documented and reviewed by supervision and management and reported in order to:

- Measure participation.
- Determine quality of intervention and follow up.
- Trend common issues and identify opportunities for improvement.
- Facilitate sharing of learnings.
- Feed recognition processes.

Follow-up

It is the desired outcome of any Stop Work Intervention that the identified safety concern(s) have been addressed to the satisfaction of all involved persons prior to the resumption of work. Most issues can be adequately resolved in a timely manner at the job site, occasionally additional investigation and corrective actions may be required to identify and address root causes.

Recognition

Conscious effort should be given to recognize individuals or work groups that exercise their authority to stop work in a manner consistent with company policy.

Protocol Instruction

- When a person identifies a perceived unsafe condition, act, error, omission, or lack of understanding that could result in an undesirable event, a stop work intervention shall be immediately initiated with the person[s] potentially at risk.
- If the supervisor is readily available and the affected person[s] is not in immediate risk, the “stop work action” should be coordinated through the supervisor. If the supervisor is not readily available or the affected person[s] in immediate risk, the “stop work” intervention should be initiated directly with those at risk.
- Employees are responsible to initiate a Stop Work Intervention when warranted and management is responsible to create a culture where Stop Work Authority is exercised freely.

- “Stop work” interventions should be initiated in a positive manner by briefly introducing yourself and starting a conversation with the phrase *“I am using my stop work authority because.....”* Using this phrase will clarify the users’ intent and set expectations as detailed in this procedure.
- Notify all affected personnel and supervision of the stop work issue. If necessary, stop associated work activities, remove person[s] from the area, stabilize the situation and make the area as safe as possible.
- All parties shall discuss and gain agreement on the stop work issue.
- If determined and agreed that the task or operation is OK to proceed as is [i.e. the stop work initiator was unaware of certain facts or procedures] the affected person[s] should thank the initiator for their concern and proceed with the work.
- If determined and agreed that the stop work issue is valid, then every attempt should be made to resolve the issue to all affected person’s satisfaction prior to the commencement of work.
- If the stop work issue cannot be resolved immediately, work shall be suspended until proper resolution is achieved. When opinions differ regarding the validity of the stop work issue or adequacy of the resolution actions, the location’s “person in charge” shall make the final determination. Details regarding differences of opinion and resolution actions should be included in the documented report.
- Positive feedback should be given to all affected employees regarding resolution of the stop work issue. Under no circumstances should retribution be directed at any person[s] who exercise in good faith their stop work authority as detailed in this program.
- All stop work interventions and associated detail shall be documented and reported as detailed in this program.

Training

Employees must receive Stop Work Authority training before initial assignment. The training must be documented including the employee’s name, the dates of training and subject.

Section 35- Substance Abuse

Purpose

To reduce the opportunities for accidental injuries to persons, and to protect the property of the company, associates, other workers, customers, and the general public. To detect illegal and unauthorized substance abuse and contraband in the workplace. To improve safety, productivity, quality workmanship, tardiness and minimize employee absenteeism.

To comply with the contractual obligations of our customers, government agreements, or a particular federal, state, or local agency. Safety Management Group will adhere to a prescribed substance abuse program when required by owner.

This policy applies to all Safety Management Group associates.

Definitions

Alcohol - Means any fermented, distilled or manufactured substance which, when consumed, can impair normal functions.

Annual - Not based on a calendar year, but based on 12-month periods with the start of the period reflecting the date the employee began work on the owner's premise.

Company Premises - Includes all buildings, land, vehicles, work areas, jobsites, customer areas and work locations, whether owned, leased, rented, or used by Safety Management Group, as well as anywhere an employee is working in the course and scope of Company employment and pay status, including while working on the property of another employer, customer, or a client.

Drugs - As used in this policy, the term means any drug, narcotic or other substance of which use or possession is prohibited or controlled by state or federal statute. The term includes substances prescribed by a physician. The terms and conditions under which an employee may use and possess physician prescribed drugs are covered under prescription medicines in this policy.

First Visit Screening - A screening performed upon an employee's initial visit at a healthcare facility due to a work-related injury suffered on company property or the jobsite.

Fitness For Duty Form - A form used to objectively determine reasonable cause for substance abuse testing.

Illegal drugs - Means a controlled substance included in Schedule I or II, as defined by Section 802 (6) of Title 21 of the United States Code, the possession of which is unlawful under Chapter 13 of that title. The five (5) more common illegal substances include:

- Marijuana (THC metabolite)
- Cocaine
- Amphetamines
- Opiates (including heroin)
- Phencyclidine (PCP)

The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

Negative Test - A negative screening obtained if: (1) the screen test indicated the absence of legal or illegal substances in excess of the screen limit, or (2) the screen test indicates the presence of legal or illegal substances in excess of the screen limit but the confirming test indicates the absence of legal or illegal substances in excess of the confirmation limits.

Positive Test - A positive test result is obtained if: (1) substance abuse test results indicated the presence of illegal substances in excess of both the screen and confirmation limits, as verified by a Medical Review Officer, and (2) the Medical Review Officer has determined that the test results do not stem from the use of prescriptions medicines, over-the-counter medicines, food, or any cause than the use of illegal substances.

Probable Cause - Probable cause shall be defined as those circumstances, based on objective evidence about the worker's conduct in the workplace that would cause a reasonable person to believe that the worker is demonstrating signs of impairment due to alcohol or other drugs. In most cases, the objective evidence giving rise to probable cause will be observed by at least two individuals, but recognizing that in certain circumstances the observation may be made by only one individual. Examples of objective evidence include when a worker shows signs of impairment such as difficulty in maintaining balance, slurred speech or erratic or atypical behavior.

Working Hours - Includes the entire period of normal working hours, including lunch periods and break periods.

Procedures

Prohibited Activities

- The manufacture, possession, use, sale, distribution, receipt or transportation of any controlled substance or illegal drug.
- Associates are prohibited from performing duties or operating heavy machinery while under the influence of alcohol or controlled/illegal substances or drugs.

Testing Requirements

- Pre-Employment Screening Policy
 - All applicants who are being considered for employment will be required, to submit a drug and alcohol screen. If the applicant refuses to consent or tests positive, the applicant will not be allowed to report for work.
- Annual Test
 - Annual drug and alcohol testing will be required upon the date of the employee's original test date.
- For Cause Test
 - If an employee is reasonably suspected of possessing, distributing or selling drugs or alcohol on Safety Management Group property or jobsite at any time.

- If the employee's behavior or job performance is reasonable cause to suspect that he/she is under the influence of drugs or alcohol on the job.
- Employee is unable to perform work in a safe or productive manner.
- If Management has determined that there is reasonable cause or suspicion that an Associate is performing work under the influence, that Associate must submit to a drug and alcohol test.

- **First Visit Test**

This test is required when the employee is either directly or indirectly involved in any accident, incident, or event for which the employee has, based upon objective evidence, reasonable belief and/or observable probable cause circumstances, demonstrated any signs of impairment and which results in treatment by a health care provider.

In an effort to obtain the most accurate testing possible such that any potential impairment can be detected with higher probability, the employee(s) are to proceed directly for testing, or as soon as possible, and before the employee returns to the job site.

- **Random Test**

- Random testing times/dates are selected by Management will be unannounced with no predictable frequency.
- Associates refusing to be tested will be interpreted as a positive test and refusal of the test can result in discharge or the employee will have immediate termination.

- **Confidentiality**

- All test results will be confidential and only accessible to authorized personnel
- It is imperative that confidentiality be maintained at all times
- Any positive test results must be confidentially reported to the appropriate employee manager or supervisor

Testing Results

Associates testing positive may be allowed to remain employed if the employee at their own expense meets the following requirements:

- Return to duty drug/alcohol testing is performed and results are negative
- Associates are required to have successfully completed counseling or rehabilitation program.
- The employee agrees to remain drug and alcohol free while continuing employment with Safety Management Group.
- Second offense will be cause for immediate termination.

Section 36- Subcontractor Conformance

Purpose

To ensure all subcontractors are made aware of and made responsible for compliance with all local, state, and federal laws, Safety Management Group policies and procedures, and owner requirements.

Scope

This policy applies to contractors, subcontractors, and all other contracted personnel involved with construction and/or maintenance activities on Safety Management Group's job sites.

Definitions

Pre-Contract Meeting - Not necessarily a meeting, but the time when Safety Management Group is confirming that the subcontractor's bid price has included the intended scope of work.

Pre-Contract Meeting Agenda - List of safety items that were communicated during the pre-bid process. Allows Safety Management Group to confirm that the previously communicated items were understood by the contractor and that pre-contract meeting requirements were fulfilled. Not intended to be all-inclusive and does not represent all safety practices that the subcontractor is expected to comply with.

Responsibilities

Safety Management Group's Project Manager must ensure the contents of this policy are presented to subcontractors at the pre-contract meeting.

All Safety Management Group Project Managers are responsible for notifying and requesting contractor personnel to correct unsafe situation.

Subcontractors are responsible for addressing safety concerns brought to their attention by Safety Management Group

Subcontractors are ultimately responsible to implement, monitor, and enforce their written safety program among their employees and subcontractors.

Subcontractors are required to designate an Onsite Safety Representative.

Procedures

Subcontractors, at their own expense, will conform to and comply with all requirements set forth by Safety Management Group, applicable laws and appropriate Health, Safety, and Environmental standards required by the governing jurisdiction. The subcontractor will take all necessary precautions to protect against any conditions caused by subcontractor's work or other involvement in any project, which involves any risk of bodily harm to persons or risk of damage to property.

Subcontractors will continuously inspect their work, materials and equipment to discover any such conditions and will be solely responsible for discovering and correcting any conditions.

Safety Management Group may review audit subcontractors work and may order the subcontractor to stop any work deemed unsafe until acceptable corrective measures have been implemented.

Subcontractors will be responsible for all costs and delays incurred by Safety Management Group as a result of any such stoppage of the work.

Safety Management Group employees will confirm verbally or in writing, during the confirmation of scope of work, that the contractor understood the pre-contract safety expectations. The pre-contract safety subjects may include the following:

- Review of Safety Management Group Safety Requirements
 - Accident Reporting (includes all work-related injuries, illnesses and property damage)
 - Contractor Designated Safety Person
 - Disciplinary Policy
 - Fall Protection
 - Fire Protection
 - Ground Fault Circuit Interrupters
 - Hard Hats
 - Housekeeping (Daily Clean-up)
 - Job Site Safety Inspections (Documented Weekly)
 - Ladders
 - Light Duty Work Program
 - Project Specific Hazards
 - Permit System when required
 - Safety Orientation
 - Safety Glasses with Side Shields
 - Scaffolding, and requirements, ladders, guardrails, etc.
 - Safety Shoes
 - Substance Abuse Screening Policy
- Review of IOSHA Standards
 - Hazard Communication
 - IOSHA Poster Requirements
 - Lead
 - Lighting
 - Safety Talks
- Subcontractor Site Safety Communication Meeting
 - Safety Management Group's Project Managers are responsible for initiating the meeting and reviewing the project safety requirements. Subcontractors will be responsible for explaining to Project Managers the methods and procedures that the subcontractor will be implementing to comply with safety standards.

A meeting should be held with all subcontractors and their onsite supervision. Safety Management Group representatives at this meeting may include the Project Manager, and Safety Representative.

At this meeting Safety Management Group should review the project safety requirements including the following:

- Accident Reporting
- Subcontractor Designated Safety Person
- Disciplinary Policy
- Fall Protection, 6' requirement, full body harness, shock absorbing lanyard
- Fire Protection
- Ground Fault Circuit Interrupters
- Hard Hats

- Housekeeping
- Job Site Safety Inspections
- Ladders
- Light Duty Work Program
- Project Specific Safety Plan
- Permit System
- Safety Orientation
- Safety Glasses
- Scaffolding
- Shutdowns
- ANSI approved Safety Shoes
- Substance Abuse Screening Policy
- Welding Shields

Subcontractors are required to submit all SDS's for each hazardous material brought onsite. A central location will be established to maintain SDS's.

Subcontractors will submit the following information for pre-qualification purposes:

- All safety programs;
- All safety training documentation and;
- All safety statistics:
 - OSHA 300A to calculate TRIR, DART, and fatality rates
 - Experience Modification Rate

Subcontractors will be part of all safety toolbox/tailgate talks, job hazard assessments, and job site safety inspections.

Safety Management Group will conduct a post-job safety performance review meeting with subcontractors.

Training Requirements

This policy will be reviewed with employees at new hire orientation. Safety Management Group employees will also be instructed in the appropriate method for addressing contractor safety concerns (i.e. not directing corrections, addressing concerns with contractor management, etc.) and explain the philosophy driving this methodology during new hire orientation.

The program will also be reviewed with onsite subcontractors during the pre-contract meeting.

Section 37- Trenching and Excavation

Purpose

The purpose of this policy is to establish standard guidelines to comply with OSHA 1926.650 and perform work safely in and around excavations.

Scope

This policy applies to all excavations on Safety Management Group projects.

Definitions

Competent Person - One who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Excavation - Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

Hazardous Atmosphere - An atmosphere which by reason of being explosive, - flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful, may cause death, illness, or injury.

Protective System - A method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield or shoring systems, and other systems that provide the necessary protection.

Trench (Trench Excavation) - A narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 m). If forms or other structures are installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 feet (4.6m) or less (measured at the bottom of the excavation), the excavation is also considered to be a trench.

Responsibilities

The assigned competent person is responsible for all aspects of safe trenching and excavation. These responsibilities include (but are not limited to) the following:

- Determination of soil type.
- Observe soil for cracks or fissures.
- Assure that implementation of shielding, shoring, benching, sloping, or other means to protect workers and public from cave in accidents is in place.
- Ensuring proper barricades are erected to prevent pedestrians or motorists from accidentally entering a trench or excavation and to aid in the protection of the trench or excavation being an attractive nuisance.
- Ensuring that employees do not enter trenches that are not shored or braced.

- Removing workers from trenches or excavations whenever conditions are such that workers' safety is jeopardized.

Procedures

Before excavating (Jobsite Preplanning):

- Before opening any excavation, efforts shall be made to identify and eliminate any potential hazards such as:
 - Underground Utilities
 - Groundwater
 - Adjacent Exposures
 - Falls
 - Unstable Soil
 - Hazardous Atmospheres
 - Vibration (vehicle traffic)
- Excavations greater than five feet in depth must be safeguarded from cave-in by the use of a protective system such as:
 - Sloping
 - Shielding
 - Benching
 - Shoring
- When choosing a system the tables and charts found in the OSHA standard 1926.650 should be referenced. If manufactured systems are used the contractor may rely on the data supplied by the manufacturer. Shoring and shielding systems must be used, installed, repaired and removed in accordance with the manufacturer's written instruction or the direction of a professional engineer.
- Call or verify that a call has been made to all Local Utility Companies 48 hours before digging to locate any and all underground installations. This contact must be documented.

During Excavation:

- Adequate protection must be provided to protect employees from falling rock, soil, or other materials and equipment. Keep all loose material at least 2 feet from the edges of the excavation.
- Employees will be protected from all hazards associated with the excavation and removed from the area or will be safeguarded.
- Employees will be provided the proper protection from the soil. Determined by its classification:
 - Type A- Dense and heavy consists mainly of clay;
 - Type B- Medium level of stability and is made of soils such as silt, sandy loam, and medium clay and;
 - Type C- which consists of gravel, loamy sand, and soft clay.

- Employees should not be permitted to work in excavations where water has accumulated or is accumulating unless adequate precautions have been taken. Diversion ditches, dikes, or other means must be used to prevent surface water from entering an excavation and to provide drainage to the adjacent area. Pump water from the trench before allowing workers to enter the area. The water removal equipment and operations shall be monitored by a competent person to ensure proper operation.
- Before an employee enters an excavation greater than 4 feet in depth, a competent person must test the atmosphere when oxygen deficiency or a hazardous atmosphere exists or could reasonably exist. Emergency rescue equipment must be readily available and must be attended when hazardous atmospheric conditions exist or may develop.
- Employees should not be permitted under loads that are handled by lifting or digging equipment. Employees should not be allowed to work in the excavation above other employees unless the lower level employees are adequately protected. OSHA requires hard hats when in a trench.
- Sufficient means for exiting excavations 4 feet deep or more must be provided and must be within 25 feet of lateral travel for employees. This can usually be accomplished by providing ladders or an earthen ramp.
- Employees exposed to public vehicular traffic must wear warning vests or other suitable garments made of reflective or high-visibility material.
- Where equipment or employees are permitted or required to crossover an excavation deeper than 6 feet and wider than 30 inches a walkway will be provided with proper guardrails.

Daily Inspections:

- Daily inspections are performed of excavations, the adjacent areas, and protective systems prior to the start of work and as conditions change by a competent person. All excavations greater than five (5) feet in depth must be constructed under the supervision of a competent person.
- This is done to identify possible cave-in sites, failure of protective shoring or bracing systems, or other hazardous conditions before the start of work and as needed throughout the work shift.
- Inspections shall also be done after every rainstorm or other hazard increasing event.

Training Requirements

- The designated "competent person" will train workers in the avoidance of excavation and trenching hazards through the use of tool box talks and/or daily work instructions.

Section 38- Cal/OSHA Confined Space Entry

Purpose

To ensure a safe work environment when work is performed in a confined space.

Scope

This procedure applies to all Safety Management Group operations with confined spaces or when engaged in confined space entry.

Definitions

Confined Space

- Is large enough and so configured that an associate can bodily enter and perform assigned work; and
- Has limited or restricted means for entry or exit
- The space is not designed for continuous associate occupancy

Controlling Contractor - The employer that has overall responsibility for construction at the worksite.

Entry Employer - Means any employer who decides that an employee it directs will enter a permit space.

Hazardous Atmosphere

- An atmosphere that may expose associates to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from permit space), injury, or acute illness from one or more of the following causes:
 - Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
 - Airborne combustible dust at a concentration that meets or exceeds its LFL;
 - Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
 - Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, *Occupational Health and Environmental Control*, or in Subpart Z, *Toxic and Hazardous Substances*, of this part and which could result in associate exposure in excess of its dose or permissible exposure limit;
 - Any other atmospheric condition that is immediately dangerous to life or health.

Host employer - Means the employer that owns or manages the property where the construction work is taking place.

Permit-Required Confined Space

- Permit-Required Confined Space means a confined space that has one or more of the following characteristics:
 - Contains or has a potential to contain a hazardous atmosphere;
 - Contains a material that has the potential for engulfing an entrant;
 - Has an internal configuration such that an entrant could be trapped or asphyxiated by inward converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
 - Contains any other recognized serious safety or health hazard.

Non-Permit Confined Space

- (Low Hazard) A confined space that poses no actual or potential atmospheric hazards and if all hazards within the confined space are eliminated without entry into the space, the space may be classified or reclassified as a Non-Permit confined space, for as long as the non-atmospheric hazards remain limited. (Forced air ventilation does not consider elimination of a hazard).

Responsibilities

The Safety Representative shall manage the overall confined space entry program and will ensure that supervisory and worker personnel are trained and comply with policy requirements.

Attendants

- Have knowledge of all potential hazards of entry.
- Aware of possibly behavioral effects of hazard exposure.
- Stay in contact communication with entrants.
- Remains outside the permit space during entry operations, unless relieved by another attendant.
- Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders entrants to evacuate immediately under any of the following conditions:
 - Attendant detects a prohibited condition.
 - Attendant detects the behavioral effects of hazard exposure in an entrant.
 - Attendant detects a situation outside the space that could endanger the entrants.
- Summons rescue and other emergency services as needed.
- Monitor only one space at a time.
- Take appropriate actions if unauthorized persons approach or enter a permit space.
 - Warn unauthorized persons to stay away from permit space.
 - Advise unauthorized persons to exit immediately if they have entered the permit space.
 - Inform authorized entrants and entry supervisor if unauthorized persons have entered the space.
- Performs non-entry rescue as specified by the employer's rescue procedure.

Entrants

- Have knowledge of all potential hazards of entry.
- Stay in contact communication with attendants.
- Alert the attendant whenever:
 - Entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
 - Entrant detects a prohibited condition.
- Exit the space as quickly as possible whenever:
 - An order to evacuate is given by the attendant or entry supervisor.
 - Entrant recognizes any warning sign or symptom of hazardous exposure.
 - Entrant detects a prohibited condition.
 - An evacuation alarm is activated.

Entry Supervisor

- Have knowledge of all potential hazards of entry.
- Verifies full completion of permit, including atmospheric testing requirements and all other applicable procedures and equipment as specified by the permit before signing and allowing entry to begin.
- Terminates the entry and cancels the permit whenever:
 - Entry operations covered by the permit are completed.
 - A condition not allowed under the permit arises in or near the permit space.
- Verifies that rescue services are available and the means for summoning them are operable.
- Removes unauthorized individuals who enter or attempt to enter the permit space. Install barriers to keep pedestrians and vehicles from the confined space entry. These barriers will also protect entrants from external hazards.
- Process to remove unauthorized persons:
 - 1) Warn the unauthorized persons that they must stay away from the permit space.
 - 2) Advise the unauthorized persons that they must exit immediately if they have entered the permit space.
 - 3) Inform the authorized entrants if unauthorized persons have entered the permit space.
- Coordinates permit transfer so that entry operations remain consistent with the terms of the entry permit and that acceptable entry conditions are maintained.
- Coordinates with other employers that are working in the space to be aware of the working conditions.

Procedures

General Requirements

- Before work begins at a worksite, each employer/contractor must ensure that a competent person identifies all confined spaces in which one or more of the employees it directs may work, and identifies each space that is a permit space and evaluates the hazards before employees enter permit spaces.
- If the workplace contains one or more permit spaces, the employer who identifies, or who receives notice of, a permit space must:
 - Inform exposed employees by posting danger signs or by any other equally effective means, of the existence and location of, and the danger posed by, each permit space; and
 - Inform, in a timely manner and in a manner other than posting, its employees' authorized representatives and the controlling contractor of the existence and location of, and the danger posed by, each permit space.
- Danger signs are posted of the existence, location, and danger posed by permit and non-permit confined spaces.
- When changes in the use or configuration of a non-permit confined space that could increase the hazards to entrants, the entry employer will re-evaluate that space and, if necessary, reclassify it as a permit-required confined space.
- The company safety representative is responsible for program development, implementation, and policy revisions.
 - Types of Hazards Associated with Confined Spaces
 - Oxygen deficiency, less than 19.5%

- Combustible/Flammable/Explosive Atmospheres
- Toxic Gases or Vapors
- Physical Hazards
- Grinding
- Agitators
- Steam
- Falling/Tripping
- Other Moving Parts
- Mulching
- Corrosive chemicals
- Biological
- Unknowns
- Electrical
- Wind
- Lighting
- Weather
- Insecure Footing
- Rodents/Snakes/Spiders

Confined Space Entry

- Review activity to be performed. The company safety representative shall determine entry classification of permit or non-permit required.
- Complete Safety Management Group Confined Space Entry Permit
 - Prepare Space Entry
 - Notify the department likely to be affected by service interruption.
 - Post signs, put up barriers and tape where necessary to prevent unauthorized entry.
 - Qualified personnel follow appropriate shutdown procedures.
 - Implement hazardous energy isolation where necessary to isolate space. Hazardous energy isolation includes blanking or blinding, removing sections of lines, pipes, or ducts, a double block and bleed system, lockout and tagout of all sources of energy, blocking or disconnecting of all mechanical linkages.
 - Empty the space if possible of hazardous materials, clean, wash and purge.
 - Ventilate if needed long enough in advance. Verify by testing.
 - Review with personnel entering the space that previous testing has been completed.
 - Attach "HOT WORK" permit, if required, to confined space entry permit.
 - Conduct atmospheric testing to determine concentration levels of all hazards identified.
 - Post confined space entry permit (if required)
- Atmosphere Testing and Monitoring Requirements
 - Initial testing of the confined space is to be conducted by a "qualified person" only. At a minimum all confined spaces must be evaluated for:
 - Oxygen (O₂) levels must be >19.5% and <21.5%
 - Presence of Carbon Monoxide (CO) gas must be below the PEL
 - Presence of explosive gas or vapor must be less than 10% of the LEL

- The atmosphere will be periodically tested while entrants are in the confined space
- Additional tests in confined spaces may be needed because of the function of the confined space. For example:
 - Chemical Hazards
 - Toxicity (Review SDS's, PEL's, TLV's and other data to evaluate exposure.)
 - Sulfur Dioxide (SO₂)
 - Hydrogen Sulfide (H₂S)
 - Hydrogen Cyanide (HCN)
 - Physical Hazards
 - Heat stress (using wet Bulb Globe thermometer)
 - Noise (using dosimeter to evaluate)
- Continuous Testing in Attended Confined Spaces
 - Where the space contains or has the potential to contain a hazardous atmosphere, continuous monitoring will be done.
 - Personnel using continuous monitors will be trained on the use and limitations of the monitor. This training is part of the annual confined space training program.
- Combustible Gases and Dusts Testing
 - All confined spaces shall be tested for explosive gases and vapors prior to entry, no "HOT WORK" shall be permitted if atmospheric readings are above 10% of the lower explosion limit (LEL). Continuous reading monitors for explosive ranges shall be used on the jobsite in which "HOT WORK" is being conducted in attended confined spaces.
 - Before "HOT WORK" is conducted in confined spaces which contain combustible dusts, they shall be adequately cleaned by means of washing or "wetting down", or vacuuming with properly grounded equipment. At NO time is compressed air to be used for cleaning of combustible dusts.

Reclassification as Non-Permit Confined Space

- Permit-required confined spaces (PRCS) may be reclassified as a non-permit confined space (NPCS) under the following procedures:
 - (1) If the permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry into the space, the permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated.
 - (2) The Entry Supervisor will document the basis for determining that all hazards in a permit space have been eliminated, through a certification that contains the date, the location of the space, and the signature of the person making the determination. The Entry Supervisor is responsible for documenting this information. The certification will be made available to each employee entering the space.

If hazards arise within a permit required confined space (PRCS) that has been declassified as a non-permit confined space (NPCS), each employee in the space shall exit the space. The Entry Supervisor shall then reevaluate the space and determine whether it must be reclassified as a permit required confined space, in accordance with other applicable provisions of this section.

This program will be reviewed at least annually and revisions will be made when necessary. The annual review will include a review of the canceled permits within the previous year.

Training Requirements

Initial and refresher (when duties change, hazards in space change or whenever evaluation determines inadequacies in associate's knowledge) training to provide affected associates with the understanding, skills and knowledge necessary to perform the job safely and the proper PPE, use of retrieval systems and other necessary equipment. Employer certification of training must include associate's name, signature or initials of trainer and date of training. Retraining will be provided when there is a change in assigned duties; there is a change in permit space operations that exposes an employee to a new hazard; and when there is reason to believe there are deviations from permit space entry procedures.

Rescue Services

Employee retrieval systems will be used whenever possible. The other end of the retrieval line must be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device must be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

A rescue team or service will be selected to perform rescue prior to starting the project. At least one person will be trained and immediately available to perform rescue and emergency services.

The rescue team will be provided with and trained to properly use the personal protective equipment and rescue equipment necessary for making rescues from permit spaces. The rescue team will be trained to perform the assigned rescue duties. And also receive authorized entrant training.

Section 39- Cal/OSHA Electrical- High Voltage

Purpose

The purpose of this program is to prevent injuries due to electrical exposure to high voltage for employees and contractors when working in California.

Scope

This program is applicable at every California work area where high voltage electrical exposure may occur. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers Safety Management Group employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Purpose

The purpose of this program is to set forth procedures for the safe use of high voltage electrical equipment, tools, and appliances at Safety Management Group.

Responsibilities

Managers/Supervisor

The Safety Manager will develop electrical safety programs and procedures in accordance with CAL/OSHA requirements and/or as indicated by events and circumstances.

Operations Managers and Supervisors are responsible for ensuring that only qualified employees and or qualified contractors perform electrical repairs or installations.

Operations Managers are also responsible for ensuring all applicable electrical safety programs are implemented and maintained at their locations.

Employees are responsible to use electrical equipment, tools, and appliances according to this program, for attending required training sessions when directed to do so and to report unsafe conditions to their supervisor immediately.

General Requirements for High Voltage Systems

Safe Access to Electrical Equipment

All work locations shall be safely accessible whenever work is to be performed. Sufficient access and working space shall be provided and maintained about all electric equipment to permit ready and safe operation and maintenance of such equipment. Illumination shall be provided as needed to perform the work safely.

- A clear working space must be maintained in the front, back and on each side of all electrical enclosures and around electrical equipment for a safe operation and to permit access for maintenance and alteration.
- A minimum two-foot working floor space in front of panels and enclosures shall be painted yellow.
- Employees may not enter spaces containing exposed energized parts unless adequate illumination is provided. Illumination shall be provided as needed to perform the work safely.
- Housekeeping in distribution rooms must receive high priority to provide a safe working and walking area in front of panels and to keep combustible materials to the minimum required to perform maintenance operations.

- All enclosures and distribution rooms must have “Danger: High Voltage – Authorized Personnel Only” posted on the front panel and on entrance doors.
- Flammable materials are strictly prohibited inside distribution rooms (Boxes, rags, cleaning fluids, etc.)
- When an employee works in a confined or enclosed space that contains exposed energized parts, the employee shall isolate the energy source and turn off the source and lock and tag out the energy source (Only qualified electricians can work on an exposed energy source).
- Protective shields, protective barriers or insulating materials as necessary shall be provided.

Safety Management Group Responsibilities

Safety Management Group shall furnish such safety devices and safeguards as may be necessary to make the employment or place of employment as free from danger to the safety and health of employees as the nature of the employment reasonably permits. Safety Management Group shall examine or test each safety device at such intervals as may be reasonably necessary to ensure that it is in good condition and adequate to perform the function for which it is intended. Any device furnished by Safety Management Group found to be unsafe shall be repaired or replaced.

Tools used for electrical work must be inspected before use. Employees shall be instructed to inspect each safety device, tool or piece of equipment, each time it is used and to use only those in good condition. Safety Management Group shall require the use of safety devices and safeguards where applicable. Defective equipment and tools shall be tagged and placed out of service.

Insulated Equipment Is Provided for Electrical Work

Insulating equipment designed for the voltage levels to be encountered shall be provided and employees shall be instructed to use the equipment. No person, firm, or corporation, or agent of same, shall require or permit any employee to perform any function in proximity to energized high-voltage lines; to enter upon any land, building or other premises and there engage in any excavation, demolition, construction, repair or other operation; or to erect, install, operate or store in or upon such premises any tools, machinery, equipment, materials or structures (including scaffolding, house moving, well drilling, pile driving or hoisting equipment) unless and until danger from accidental contact with high-voltage lines has been effectively guarded against.

Electrical Work May Only Be Performed by Qualified Workers

Only qualified electrical workers shall work on energized conductors or equipment connected to energized high-voltage systems. Except for replacing fuses, operating switches or other operations that do not require the employee to contact energized high-voltage conductors or energized parts of equipment, clearing "trouble" or in emergencies involving hazard to life or property, no such employee shall be assigned to work alone. Employees in training, who are qualified by experience and training, shall be permitted to work on energized conductors or equipment connected to high-voltage systems while under the supervision or instruction of a qualified electrical worker.

Observers

During the time work is being done on any exposed conductors or exposed parts of equipment connected to high-voltage systems, a qualified electrical worker, or an employee in training, shall be in close proximity at each work location to:

- Act primarily as an observer for the purpose of preventing an accident, and
- Render immediate assistance in the event of an accident. Such observer will not be required in connection with work on overhead trolley distribution circuits not exceeding 1,500 volts D.C. where there is no conductor of opposite polarity less than 4 feet there from, or where such work is performed from suitable tower platforms or other similar structures.

Suitable Temporary Barriers or Barricades

Covers or barriers must be installed on boxes, fittings and enclosures to prevent accidental contact with live parts. Suitable temporary barriers or barricades shall be installed when access to opened enclosures containing exposed energized equipment is not under the control of an authorized person.

In locations where electric equipment is likely to be exposed to physical damage, enclosures or guards shall be so arranged and of such strength as to prevent such damage.

Entrances to rooms and other guarded locations containing exposed live parts shall be marked with conspicuous warning signs forbidding unqualified persons to enter.

Placement of Warning Signs Near Overhead Power Lines

Safety Management Group will post and maintain in plain view of the operator and driver on each crane, derrick, power shovel, drilling rig, hay loader, hay stacker, pile driver or similar apparatus, a durable warning sign legible at 12 feet reading: "Unlawful To Operate This Equipment Within 10 Feet Of High-Voltage Lines of 50,000 Volts or Less." The erection, operation or dismantling of any boom-type lifting or hoisting equipment, or any part thereof, closer than the minimum clearances from energized overhead high-voltage lines set forth shall be prohibited.

Overhead and Energized High-Voltage Power Lines

Safe guards shall be in place when working on or near overhead power lines. Safety Management Group nor any person, firm, or corporation, or agent of same, shall require or permit any employee to perform any function in proximity to energized high-voltage lines; to enter upon any land, building, or other premises and there engage in any excavation, demolition, construction, repair, or other operation; or to erect, install, operate, or store in or upon such premises any tools, machinery, equipment, materials, or structures (including scaffolding, house moving, well drilling, pile driving, or hoisting equipment) unless and until danger from accidental contact with said high-voltage lines has been effectively guarded against.

Safe Clearance Distance During Operations of Boom-Type Lifting or Hoisting Equipment from Overhead Power Lines

The erection, operation or dismantling of any boom-type lifting or hoisting equipment, or any part thereof, closer than the minimum clearances from energized overhead high-voltage lines set forth is strictly prohibited.

Safe Limit of Approach Distance

A safe limit of approach distance is maintained by workers. When performing work with live line tools, minimum clear distances shall be maintained. Conductor support tools, such as link sticks, strain carriers, and insulator cradles, shall be permitted to be used provided that the clear insulation is at least as long as the insulator string or the minimum distance specified for

the operating voltage. When performing work with live line tools, minimum clear distances in CCR 2940.2 shall be maintained.

Requirements Before Work is Performed on Exposed Energized Parts of Equipment or Systems

Work shall not be performed on exposed energized parts of equipment or systems until the following conditions are met:

- Responsible supervision has determined that the work is to be performed while the equipment or systems are energized.
- Involved personnel have received instructions on the work techniques and hazards involved in working on energized equipment.
- Suitable personal protective equipment and safe guards (i.e., approved insulated gloves or insulated tools) are provided and used.

Conductive measuring tapes, ropes or similar measuring devices and conductive fish tapes shall not be used when working on or near exposed energized conductors or parts of equipment. Conductive fish tapes shall not be used in raceways entering enclosures containing exposed energized parts unless such parts are isolated by suitable barriers.

Lock Out/Tag Out

- While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, the circuits energizing the parts shall be locked out or tagged or both.
- If any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, the circuits energizing the parts shall be locked out or tagged or both.
- All electrical equipment and systems shall be treated as energized until tested or otherwise proven to be de-energized.
- Per Safety Management Group policy all electrical will be outsourced and performed only by qualified and licensed electrical contractors who are familiar with the use of special precautionary techniques, PPE, insulating and shielding materials and insulated tools. Any equipment being made ready for maintenance will be locked out using Safety Management Group's Control of Hazardous Energy – Lock Out/Tag Out Program. Lockouts are performed by the Safety Manager, Shop Foreman or Branch Manager. Designated employees in some branches may be trained by local management to lock out equipment. If live sources are to be worked it will only be performed with the knowledge of local management. Only certified electricians may work on electric circuit parts or equipment.
- Authorized Person duties after the required work on an energized system or equipment - The authorized person shall be responsible for removing from the work area any temporary personnel protective equipment and reinstalling all permanent barriers or covers.
- Authorized personnel will be trained in lock out/tag out procedures.
- Affected personnel will be notified when lock out/tag out activities are being performed in their work area.

Inspections

- Employees shall be instructed to inspect each safety device, tool or piece of equipment. Employees shall be instructed to inspect each safety device, tool or piece of equipment, each time it is used and to use only those in good condition.

- Safety Management Group requires the use of safety devices and safeguards where applicable.
- The use of a hard fixed GFCI or a portable GFCI adapter shall be used with all portable hand tools, electric extension cords, drop lights and all 110-volt equipment.
- Defective insulating equipment is removed from service. Insulating equipment found to be defective or damaged shall be immediately removed from service. A system, such as tagging, must be in place to ensure defective equipment must not be used by other workers.

Marking of Insulated Equipment and/or PPE with The Latest Test Date or The Next Required Testing Date

- Insulated gloves, sleeves and blankets must be visually inspected and electrically re-tested periodically at prescribed intervals or when found to be damaged or defective. Gloves, sleeves and blankets shall be marked to indicate compliance with the re-test schedule and shall be marked with either the date tested, or the date the next test is due.

Repairs

- Only Qualified Personnel, who have been authorized by the department supervisor or manager, may make repairs to supply cords on electrical tools and to extension cords.
- The names of employees authorized to make repairs will be posted in the workplace.
- Only certified electricians shall be allowed to make repairs to electrical equipment and wiring systems.
- The supervisor obtaining the services of a certified electrician is responsible to verify the electrician's credentials.
- Employees shall not enter spaces containing exposed energized parts unless qualified and proper illumination exists to enable employees to work safely.
- Employees shall not wear conductive apparel such as rings, watches, jewelry, etc. (unless they are rendered non-conductive by covering, wrapping, or other insulating means) while working on or near open energized equipment this includes batteries on trucks, forklifts, phone backup systems or other such equipment.
- If employees are subject to handle long dimensional conductor objects (ducts or pipes), steps for safe work practices shall be employed to ensure the safety of workers.

Ladders

- Only approved, non-conductive ladders, may be used when working near or with electrical equipment, which includes changing light bulbs.
- Ladders must be either constructed of wood, fiberglass, or have non-conductive side rails.
- Wood ladders should not be painted, which can hide defects, except with clear lacquer.
- When using ladders, they shall be free from any moisture, oils, and greases.

Switches, Circuit Breakers and Disconnects

- All electrical equipment and tools must have an on and off switch and may not be turned on or off by plugging or unplugging the supply cord at the power outlet.
- Circuit breaker panel boxes and disconnects must be labeled with the voltage rating.
- Each breaker within a breaker panel must be labeled for the service it provides.

- Disconnect switches providing power for individual equipment must be labeled accordingly.

Contractors

- Only approved, certified, electrical contractors may perform construction and service work on Safety Management Group or client property.
- It is the Manager/Supervisors responsibility to verify the contractor's certification.

Fire Extinguishers

- Approved fire extinguishers must be provided near electrical breaker panels and distribution centers.
- Water type extinguishers shall not be located closer than 50 feet from electrical equipment.

Equipment Grounding

- All gas compressors, air compressors, separators, vessels, etc. shall be grounded by means of using a lug and ground strap, nominal in size to a ½" bolt or larger, attached to a ground rod six feet or longer.
- Equipment bonding jumpers shall be of copper or other corrosion-resistance material.
- The transfer of hazardous or flammable material from a metal or plastic container with a flash point of 100 degrees F or less shall have a ground strap from the container and attached to the skid or a ground rod placed in the ground.

Training

All affected employees will be trained in high voltage electrical safety requirements and the training shall be documented.

Safe work practices shall be employed to prevent electric shock or other injuries resulting for either direct or indirect electrical contacts when work is performed near or on equipment or circuits which are or may be energized.

Electric Shock-CPR

- If someone is discovered that has received an electric shock and is unconscious, first check to see if their body is in contact with an electrical circuit. Do not touch a person until you are sure there is no contact with an electrical circuit.
- When it is safe to make contact with the victim, begin CPR if the person's heart has stopped or they are not breathing.
- Call for help immediately.

Section 40- Cal/OSHA Electrical- Low Voltage

Purpose

The purpose of this program is to prevent injuries due to electrical exposure to low voltage (less than or equal to 600 volts) for employees and contractors when working in California.

Scope

This program is applicable at every California work area where low voltage electrical exposure may occur. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers Safety Management Group employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Purpose

The purpose of this program is to set forth procedures for the safe use of low voltage electrical equipment, tools, and appliances at Safety Management Group

Responsibilities

Managers/Supervisor

The Safety Manager will develop electrical safety programs and procedures in accordance with CAL/OSHA requirements and/or as indicated by events and circumstances.

Operations Managers and Supervisors are responsible for ensuring that only qualified employees and or qualified contractors perform electrical repairs or installations.

Operations Managers are also responsible for ensuring all applicable electrical safety programs are implemented and maintained at their locations.

Employees are responsible to use electrical equipment, tools, and appliances according to this program, for attending required training sessions when directed to do so and to report unsafe conditions to their supervisor immediately.

General Requirements for Low Voltage Systems

- Only qualified persons may work on electrical equipment or systems. Only qualified persons shall work on electrical equipment or systems. Only qualified persons shall be permitted to perform any function in proximity to energized overhead conductors unless means to prevent accidental contact have been provided.
- Maintenance of electrical installations is required to ensure their safe condition.
- Electrical equipment and wiring must be protected from mechanical damage and environmental deterioration.

Use of Barriers or Barricades

Covers or barriers must be installed on boxes, fittings and enclosures to prevent accidental contact with live parts. Suitable temporary barriers or barricades shall be installed when access to opened enclosures containing exposed energized equipment is not under the control of an authorized person. Energized parts of electric equipment operating at 50 volts or more shall be guarded against accidental contact by use of approved cabinets or other forms of approved enclosures or by any of the following means:

- By location in a room, vault or similar enclosure that is accessible only to qualified persons.

- By suitable permanent, substantial partitions or screens so arranged that only qualified persons will have access to the space within reach of the energized parts. Any openings in such partitions or screens shall be so sized and located that persons are not likely to come into accidental contact with the energized parts or to bring conducting objects into contact with them.
- By location on a suitable balcony, gallery or platform so elevated and otherwise located as to prevent access by unqualified persons; or
- By elevation of 8.0 feet (2.44 m) or more above the floor or other working surface.

In locations where electric equipment is likely to be exposed to physical damage, enclosures or guards shall be so arranged and of such strength as to prevent such damage. Entrances to rooms and other guarded locations containing exposed live parts shall be marked with conspicuous warning signs forbidding unqualified persons to enter.

Use of barriers or barricades at access points - Suitable temporary barriers, or barricades shall be installed when access to opened enclosures containing exposed energized equipment is not under the control of an authorized person.

Reinstalling barriers or covers after work is completed - The authorized person shall be responsible for removing from the work area any temporary personnel protective equipment and reinstalling all permanent barriers or covers.

Procedures Used Prior to Work Being Performed on Exposed Energized Parts of Equipment or Systems

Work shall not be performed on exposed energized parts of equipment or systems until the following conditions are met:

- Responsible supervision has determined that the work is to be performed while the equipment or systems are energized.
- Involved personnel have received instructions on the work techniques and hazards involved in working on energized equipment.
- Suitable personal protective equipment and safe guards (i.e., approved insulated gloves or insulated tools) are provided and used.

Conductive measuring tapes, ropes or similar measuring devices and conductive fish tapes shall not be used when working on or near exposed energized conductors or parts of equipment. Conductive fish tapes shall not be used in raceways entering enclosures containing exposed energized parts unless such parts are isolated by suitable barriers.

Lock Out/Tag Out Procedures Are Used

- While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been de-energized, the circuits energizing the parts shall be locked out or tagged or both. Locking and tagging will be accomplished before work is started.
- If any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, the circuits energizing the parts shall be locked out or tagged or both.
- All electrical equipment and systems shall be treated as energized. All electrical equipment and systems shall be treated as energized until tested or otherwise proven to be de-energized.
- Per Safety Management Group policy all electrical will be outsourced and performed only by qualified and licensed electrical contractors who are familiar with the use of special precautionary techniques, PPE, insulating and shielding materials and insulated tools. Any equipment being made ready for maintenance will be locked out using Safety Management Group's Control of Hazardous Energy – Lock Out/Tag Out

Program. Lockouts are performed by the Safety Manager, Shop Foreman or Branch Manager. Designated employees in some branches may be trained by local management to lock out equipment. If live sources are to be worked it will only be performed with the knowledge of local management. Only certified electricians may work on electric circuit parts or equipment.

- Authorized Person duties after the required work on an energized system or equipment - The authorized person shall be responsible for removing from the work area any temporary personnel protective equipment and reinstalling all permanent barriers or covers.
- Authorized personnel will be trained in lock out/tag out procedures.
- Affected personnel will be notified when lock out/tag out activities are being performed in their work area.

Inspections

- Electrical equipment, tools, and appliances must be inspected prior to each use.
- The use of a hard fixed GFCI or a portable GFCI adapter shall be used with all portable hand tools, electric extension cords, drop lights and all 110 volt equipment.
- Faulty equipment, tools, or appliances shall be removed from service immediately and tagged "Out of Service", dated and signed by the employee applying the tag.

Repairs

- Only Qualified Personnel, who have been authorized by the department supervisor or manager, may make repairs to supply cords on electrical tools and to extension cords.
- The names of employees authorized to make repairs will be posted in the workplace.
- Only certified electricians shall be allowed to make repairs to electrical equipment and wiring systems.
- The supervisor obtaining the services of a certified electrician is responsible to verify the electrician's credentials.
- Employees shall not enter spaces containing exposed energized parts unless qualified and proper illumination exists to enable employees to work safely.
- Employees shall not wear conductive apparel such as rings, watches, jewelry, etc. (unless they are rendered non-conductive by covering, wrapping, or other insulating means) while working on or near open energized equipment this includes batteries on trucks, forklifts, phone backup systems or other such equipment.
- If employees are subject to handle long dimensional conductor objects (ducts or pipes), steps for safe work practices shall be employed to ensure the safety of workers.

Extension Cords

- Use only three-wire, grounded, extension cords and cables that conform to a hard service rating of 14 amperes or higher, and grounding of the tools or equipment being supplied.
- Only commercial or industrial rated-grounded extension cords may be used in shops and outdoors.
- Cords for use other than indoor appliances must have a rating of at least 14 amps.
- Cords must have suitable strain relief provisions at both the plug the receptacle ends.
- Work lamps (drop light) used to power electrical tools must have a 3 wire, grounded outlet, unless powering insulated tools.
- Adapters that allow three wire, grounded prongs, connected to two wire non-grounded outlets are strictly prohibited.

- Cords must have a service rating for hard or extra-hard service and have S, AJ, ST, SO, SJO, SJT, STO, or SJTO printed on the cord.
- Cords may not be run through doorways, under mats or carpets, across walkways or aisles, concealed behind walls, ceilings or floors, or run through holes in walls, or anywhere where they can become a tripping hazard.
- High current equipment or appliances should be plugged directly into a wall outlet whenever possible.
 - All extension cords shall be plugged into one of the following:
 - A GFCI outlet;
 - A GFCI built into the cord;
 - A GFCI adapter used between the wall outlet and cord plug.
- All extension cords and or electrical cords shall be inspected daily or before each use, for breaks, plug condition and ground lugs, possible internal breaks, and any other damage. If damage is found, the extension cord or electrical cord shall be remove from service and repaired or replaced.
- Extension cords shall not be used on compressor skid to operated heat tapes or any other type of equipment on a temporary basis. Heat tapes or other equipment shall be hard wired per applicable electrical codes.

Outlets

- Outlets connected to circuits with different voltages must use a design such that the attachment plugs on the circuits are not interchangeable.
- Multiple outlet boxes must be plugged into a wall receptacle.
- Multiple outlet boxes must not be used to provide power to microwave ovens, toasters, space heaters, hot plates, coffeepots, or other high-current loads.

Double Insulated Tools

- Double insulated tools must have the factory label intact indicating the tool has been approved to be used without a three wire grounded supply cord connection.
- Double insulated tools must not be altered in any way, which would negate the factory rating.

Ladders

- Only approved, non-conductive ladders, may be used when working near or with electrical equipment, which includes changing light bulbs.
- Ladders must be either constructed of wood, fiberglass, or have non-conductive side rails.
- Wood ladders should not be painted, which can hide defects, except with clear lacquer.
- When using ladders they shall be free from any moisture, oils, and greases.

Confined or Enclosed Work Spaces

- When an employee works in a confined or enclosed space that contains exposed energized parts, the employee shall isolate the energy source and turn off the source and lock and tag out the energy source (Only qualified electricians can work on an exposed energy source).
- Protective shields, protective barriers or insulating materials as necessary shall be provided.

Switches, Circuit Breakers and Disconnects

- All electrical equipment and tools must have an on and off switch and may not be turned on or off by plugging or unplugging the supply cord at the power outlet.
- Circuit breaker panel boxes and disconnects must be labeled with the voltage rating.
- Each breaker within a breaker panel must be labeled for the service it provides.
- Disconnect switches providing power for individual equipment must be labeled accordingly.

Enclosures, Breaker Panels, and Distribution Rooms

- A clear working space must be maintained in the front, back and on each side of all electrical enclosures and around electrical equipment for a safe operation and to permit access for maintenance and alteration.
- A minimum two-foot working floor space in front of panels and enclosures shall be painted yellow.
- Employees may not enter spaces containing exposed energized parts unless illumination is provided that enables the employees to work safely.
- Housekeeping in distribution rooms must receive high priority to provide a safe working and walking area in front of panels and to keep combustible materials to the minimum required to perform maintenance operations.
- All enclosures and distribution rooms must have “Danger: High Voltage – Authorized Personnel Only” posted on the front panel and on entrance doors.
- Flammable materials are strictly prohibited inside distribution rooms (Boxes, rags, cleaning fluids, etc.)

Contractors

- Only approved, certified, electrical contractors may perform construction and service work on Safety Management Group or client property.
- It is the Manager/Supervisors responsibility to verify the contractor’s certification.

Fire Extinguishers

- Approved fire extinguishers must be provided near electrical breaker panels and distribution centers.
- Water type extinguishers shall not be located closer than 50 feet from electrical equipment.

Electric Welders

- A disconnecting means shall be provided in the supply circuit for each motor-generator arc welder, and for each AC transformer and DC rectifier arc welder which is not equipped with a disconnect mounted as an integral part of the welder.
- A switch or circuit breaker shall be provided by which each resistance welder and its control equipment can be isolated from the supply circuit. The ampere rating of this disconnecting means may not be less than the supply conductor ampacity.

Equipment Grounding

- All gas compressors, air compressors, separators, vessels, etc. shall be grounded by means of using a lug and ground strap, nominal in size to a ½” bolt or larger, attached to a ground rod six feet or longer.
- Equipment bonding jumpers shall be of copper or other corrosion-resistance material.

- The transfer of hazardous or flammable material from a metal or plastic container with a flash point of 100 degrees F or less shall have a ground strap from the container and attached to the skid or a ground rod placed in the ground.

Ground Fault Circuit Interrupters

All 120-volt, single-phase 15 and 20 ampere receptacle outlets on construction or maintenance sites, which are not part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground fault circuit interrupters for personnel protection.

- All hand portable electric tools and extension cords shall use a GFCI.
- Additionally, approved GFCI's shall be used for 240-Volt circuits in the same service as described above.
- GFCI's must be used on all 120 volt, single-phase 15 amp and 20 amp receptacles within 6 feet of a sink, damp areas or on installed outdoor equipment.
- The GFCI must be the first device plugged into a permanent receptacle.
- The GFCI must be tested before each use.

Training

All regular full time and temporary employees will be trained in low voltage electrical safety requirements and the training shall be documented.

Safe work practices shall be employed to prevent electric shock or other injuries resulting for either direct or indirect electrical contacts when work is performed near or on equipment or circuits which are or may be energized.

Electric Shock-CPR

- If someone is discovered that has received an electric shock and is unconscious, first check to see if their body is in contact with an electrical circuit. Do not touch a person until you are sure there is no contact with an electrical circuit.
- When it is safe to make contact with the victim, begin CPR if the person's heart has stopped or they are not breathing.
- Call for help immediately.

Section 41- Cal/OSHA Excavation and Trenching

Purpose

The purpose of this training program is to protect employees from safety hazards that may be encountered during work in trenches and excavations in California in accordance with CCR 1541.

Scope

Safety Management Group is required to participate as a contract employer at client locations in California with trenching and excavation work; however, Safety Management Group does not initiate trenching operations.

When work is performed on a non-owned or operated site, the operator's program shall take precedence; however, this document covers Safety Management Group employees for basic awareness purposes that addresses all items and shall be used when an operator's program doesn't exist.

Key Responsibilities

Management shall determine if this program is required for regulatory compliance within his/her region. If this program is deemed necessary, then management shall determine which employees within his/her region is required to receive this training.

Management shall select a training facility or use an in-house qualified trainer to supply the training.

Competent Person - One who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees and who has authorization to take prompt corrective measures to eliminate them.

Employees are required to follow all duties as specified in this procedure.

Procedure

Competent Person Duties

The Safety Manager or their designee shall have the following duties:

Protective Systems or Equipment

- Monitoring water removal equipment and operations.
- Removal of workers if conditions dictate.
- Atmospheric testing.
- Inspecting excavations subject to runoff from heavy rains to determine need for diversion ditches, dikes, or other suitable protection.
- Determining cave-in potential to assess need for shoring or other protective system.
- Examining damaged material or equipment used for protective systems to determine its suitability for continued use.
- Classifying soil and rock deposits, by both visual analysis and by testing, to determine appropriate protection; re-classifying, if necessary, based on changing conditions.
- Determining the appropriate slope of an excavation to prevent collapse due to surcharge loads from stored material or equipment, operating equipment, adjacent structures, or traffic, and assuring that such slope is achieved.

Inspecting Trench and Protective Systems

- Inspections prior to entry and authorizing immediate removal of employees from the hazardous area where evidence of possible cave-in, failure of protective systems, hazardous atmospheres, or other hazardous conditions exists.

Unsafe Access/Egress

- Designing structural ramps that are used solely by employees as a means of access or egress. Structural ramps used for access or egress of equipment must be designed by a competent person qualified in structural design.

Buried Utilities and Pre-work Site Inspection

- Buried utilities are identified and/or marked. The approximate location of subsurface installations, such as sewer, telephone, fuel, electric, water lines, or any other subsurface installations that reasonably may be expected to be encountered during excavation work, shall be determined by the excavator prior to opening an excavation.
- Excavation shall be done in a manner that does not endanger the underground installations or the employees engaged in the work. Utilities left in place shall be protected by barricades, shoring, suspension or other means as necessary to protect employees.

General Requirements

Safe Means of Access/Egress

- A safe means of access/egress (e.g. ladders, ramps, stairs, etc.) is provided for workers entering and exiting an excavation.
- A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees.

Structural Ramps

- Structural ramps used solely by employees as a means of access or egress from excavations shall be designed by a competent person. Structural ramps used for access or egress of equipment shall be designed by a person qualified in structural design, and shall be constructed in accordance with the design.
- Ramps and runways constructed of two or more structural members shall have the structural members connected together to prevent movement or displacement.
- Structural members used for ramps and runways shall be of uniform thickness.
- Cleats or other appropriate means used to connect runway structural members shall be attached to the bottom of the runway or shall be attached in a manner to prevent tripping.
- Structural ramps used in place of steps shall be provided with cleats or other surface treatments on the top surface to prevent slipping.

Ladders

- When portable ladders are used, the ladder side rails shall extend a minimum of 3 feet above the upper surface of the excavation.
- Ladders shall have nonconductive side rails if work will be performed near exposed energized equipment or systems.
- Ladders will be inspected prior to use for signs of damage or defects. Damaged ladders will be removed from service and marked with "Do Not Use" until repaired.

- Ladders shall be used only on stable and level surfaces unless secured. Ladders placed in any location where they can be displaced by workplace activities or traffic shall be secured, or barricades shall be used to keep these activities away from the ladder.
- Non-self-supporting ladders shall be positioned so that the foot of the ladder is one-quarter of the working length away from the support.
- Employees shall not be allowed to carry any object or load while on the ladder that could cause them to lose their balance and fall.

Protection from Vehicular Traffic and Falling Loads

- Employees wear reflective garments for protection from vehicular traffic. Employees exposed to public vehicular traffic shall be provided with, and shall wear, warning vests or other suitable garments marked with or made of reflectorized or high-visibility material.
- No employee shall be permitted underneath loads (or where loads may fall) handled by lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles provide adequate protection for the operator during loading and unloading operations.

Barriers and Walkways

- Barriers are used around excavations and/or trenches.
- When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.
- Walkways are provided. Where employees or equipment are required or permitted to cross over excavations over 6-feet in depth and wider than 30 inches, walkways or bridges with standard guardrails shall be provided.
- Warning lights or other illumination shall be maintained as necessary for the safety of the public and employees from sunset to sunrise.
- Wells, holes, pits, shafts and all similar hazardous excavations shall be effectively barricaded or covered and posted as necessary to prevent unauthorized access. All temporary excavations of this type shall be backfilled as soon as possible.

Atmospheric Testing

- Testing and controls shall be put in place to prevent exposure to harmful levels of atmospheric contaminants and to assure acceptable atmospheric conditions. Testing of oxygen levels should be accomplished followed by combustible gases and toxic chemicals.
- The atmosphere shall be tested for air contaminants (oxygen, flammable gases, etc.) in excavations over 4 feet deep or if a hazardous atmosphere exists or could reasonably be expected to exist. A hazardous atmosphere could be expected, for example, in excavations in landfill areas, in excavations in areas where hazardous substances are stored nearby, or in excavations near or containing gas pipelines.
- Adequate precautions shall be taken to prevent employee exposure to atmospheres containing less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or forced ventilation of the workspace.

- Safety Management Group will ensure safe operation of internal combustion engines in excavations or shafts. Whenever internal combustion engine-driven equipment is operated inside a shaft, a ventilation system shall be provided.
- When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, continuous air monitoring will be performed. The device used for atmospheric monitoring shall be equipped with an audible and visual alarm.
- Atmospheric testing will be performed using a properly calibrated direct reading gas monitor. Direct reading gas detector tubes or other acceptable means may also be used to test potentially toxic atmospheres

Personal Protective Equipment

- All employees working in trenches or excavations shall wear approved hard-hats and steel toed shoes or boots.
- Employees exposed to flying fragments, dust, or other materials produced by drilling, sawing, sanding, grinding and similar operations shall wear approved safety glasses with side shields.
- Employees exposed to hazards produced by, or performing, welding, cutting, or brazing operations shall wear approved spectacles or a welding faceshield or helmet.
- Employees entering bell-bottom pier holes or other similar deep and confined footing excavations shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any line used to handle materials and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.
- Employees shall wear approved gloves or other suitable hand protection.
- Employees using, or working in the immediate vicinity of, hammer drills, masonry saws, jackhammers or similar high noise producing equipment shall wear suitable hearing protection.

Procedures for Rescue and Equipment Needs

- Rescue equipment is available. Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attended when in use. Employees entering bell-bottom pier holes, or other similar deep and confined footing excavations, shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any line used to handle materials, and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.
- Only personnel that have received approved training and have appropriate equipment shall attempt retrieval that would require entry into a hazardous atmosphere.

Protection of Employees From Accumulation of Water

- Employees shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation.
- If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operation shall be monitored by a competent person trained in the use of the equipment.
- If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water

from entering the excavation. Precautions shall also be taken to provide adequate drainage of the area adjacent to the excavation.

- The competent person shall inform workers of the precautions or procedures that are to be followed if water accumulates or is accumulating in an excavation.

Protecting Adjacent Structures

- Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.
- The competent person will determine if the excavation work could affect the stability of adjoining buildings, walls, sidewalks or other structures.
- Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees shall not be permitted.

Protection of Employees from Falling Objects and Loose Rocks or Soil

- Removal of Excavation Hazards: All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported, as necessary, to safeguard employees. Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.
- Employees shall be protected from excavated materials, equipment or other materials that could pose a hazard by falling or rolling into excavations.
- Spoil piles or other materials are stored two feet or more from the edge of the excavation. Protection shall be provided by placing and keeping materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations or by a combination of both if necessary.
- Materials piled, grouped or stacked near the edge of an excavation must be stable and self-supporting.

Stabilization of Soil

- Soil classifications must be determined by testing and protective systems designed according to soil classifications.
- The most stable type of soil is Type A. It is dense and heavy and consists primarily of clay.
- Type B has a medium level of stability and is made of soils such as silt, sandy loam, and medium clay.
- The least stable soil is Type C, which consists of gravel, loamy sand, and soft clay.
- Employees shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation.
- Protection systems include shoring, sloping and shielding.
- Employees should be protected from hazards of falling, rolling or sliding materials or equipment. Shields should not be subjected to excessive forces and will be installed to protect employees from lateral loads.
- Employees are restricted from being in the shield when installing or removing. The shield must be designed to resist calculated trench forces.

Daily Inspection

- Daily inspections are made by a competent person. Daily inspections of excavations, the adjacent areas and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres or other hazardous conditions.
- Requirement for a competent person: An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rain storm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.
- Where the competent person finds evidence of a situation that could result in a possible cave-in, failure of protective systems, hazardous atmosphere, or other hazardous conditions, exposed employees shall be immediately removed from the hazardous area until precautions have been taken to assure their safety.
- There shall be a written log of all inspections conducted. This log shall include the date, work site location, results of the inspection, and a summary of any action taken to correct existing hazards.

Requirements for Training

- Workers are provided training on excavation/trenching. Employees who are involved in the excavation operation and exposed to excavation operation hazards shall be trained in the excavator notification and excavation practices.
- Training shall be performed before the employee is assigned duties in excavations.
- Retraining will be performed whenever work site inspections conducted by the competent person or Safety Management Group management indicates that an employee does not have the necessary knowledge or skills to safely work in or around excavations.
- Training records shall include the date(s) of the training program, the instructor(s) of the training program, a copy of the written material presented, and the names of the employee(s) to whom the training was given.

Section 42- Cal/OSHA Fall Protection

Purpose

To protect Safety Management Group associates and subcontractors from the hazards of falls from elevated areas.

Scope

These fall protection guidelines will also apply to floor, roof, or wall openings and has been written to protect all personnel from the possibility or danger of personnel or materials falling through these openings.

Definitions

Anchorage - Means a secure point of attachment for lifelines, lanyards or deceleration devices.

Body Harness - Means straps which may be secured about the associate in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Controlled Access Zone (CAZ) - Means an area in which certain work (i.e., overhand bricklaying) may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled.

Deceleration Device - Means any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, tearing or deforming lanyards, automatic self retracting lifelines/lanyards, etc., which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an associate during fall arrest.

Guardrail System - Means a barrier erected to prevent associates from falling lower levels.

Handrail: Single bar on brackets attached on a wall, ramp or stairway, used to prevent tripping.

Hole - Means a gap or void 2 inches (5.1cm) or more in its least dimension, in a floor, roof, or other walking/working surface.

Lanyard - Means a flexible line of rope, wire, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline, or anchorage.

Leading Edge - Means the edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an "unprotected side and edge" during periods when it is not actively and continuously under construction.

Lifeline - Means a component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

Low Slope Roof - Means a roof having a slope less than or equal to 4 in 12 (vertical to horizontal).

Lower Levels - Means those areas or surfaces to which an associate can fall. Such areas or surfaces include, but are not limited to, ground levels, floors, platforms, ramps, runways, excavations, pits, tanks, material, water, equipment, structures, or portions thereof.

Opening - Means a gap or void 30 inches (76 cm) or more high and 18 inches (48 cm) or more wide, in a wall or partition, through which associates can fall to a lower level.

Personal Fall Arrest System - Means a system used to arrest an associate in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

Rope Grab - Means a deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an associate. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.

Roof - Means the exterior surface on the top of a building. This does not include floors or formwork which, because a building has not been completed, temporarily become the top surface of a building.

Roofing Work - Means the hoisting, storage, application, and removal of roofing materials and equipment, including related insulation, sheet metal, and vapor barrier work, but not including the construction of the roof deck.

Safety Monitoring System - Means a safety system in which a competent person is responsible for recognizing and warning associates of fall hazards.

Standard Railing: Vertical barrier to protect and prevent persons from falling into, through or from wall openings, ramps, platform or other areas where a fall hazard exists.

Steep Roof - Means a roof having a slope greater than 4 in 12 (vertical to horizontal).

Toeboard - Means a low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

Unprotected Sides and Edges - Means any side or edge (except at entrances to points of access) of a walking/working surface, (i.e., floor, roof, ramp, or runway where there is no wall or guardrail system at least 39 inches [1.0 m] high.)

Walking/Working Surfaces - Means any surface, whether horizontal or vertical on which an associate walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which associates must be located in order to perform their job duties.

Warning Line System - Means a barrier erected on a roof to warn associates that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without the use of a guardrail, body belt, or safety net systems to protect associates in the area.

Work Area - Means that portion of a walking/working surface where job duties are being performed.

Responsibilities

The Safety Representative will ensure that all Project Managers are trained and educated on the company fall protection policy and procedures.

Foremen must instruct personnel in the use of fall protection equipment and procedures. Foremen will consult with Project Management and the Safety Representative to determine if the project has an adequate fall protection plan.

All associates are required to follow safe work practices related to fall protection.

Project Managers must evaluate and control the worksite hazards associated with floor, roof, and floor openings and must instruct workers to avoid exposure to the hazards and/or provide the physical means to prevent such exposures.

The employer shall provide for prompt rescue of associates in the event of a fall or shall assure that associates are able to rescue themselves.

All incidents involving falls will be investigated.

Procedures

Pre Project Planning - A systematic evaluation of the building structure, openings and skylights, and fall exposures must be made prior to construction or demolition operations. Pre project planning for safety is best performed in conjunction with the safety department, the project management team, and other appropriate experts. A written site-specific fall prevention plan may be appropriate for particularly hazardous projects. The site specific fall prevention plan will be completed by a qualified person.

- *Compliance with Fall Protection Requirements*

- Generally, fall protection for workers is required whenever there is a potential for fall exposure of six (6) feet or more. Existing regulations allow alternative systems to protect workers from fall-related accidents.
- ANSI approved personal fall arrest (personal fall restraint or positioning systems) will be worn by employees with exposures to falling in excess of 7.5 feet from the perimeter of a structure, unprotected sides and edges, leading edges, through shaftways and openings, sloped roof surfaces steeper than 7:12, or other sloped surfaces steeper than 40 degrees not otherwise adequately protected.
- All positioning devices and personal fall arrest devices (safety belts, harnesses and lanyards) placed in service or purchased on or before 2/1/97 must be labeled as ANSI A10.14-1975.
All personal fall arrest, personal fall restraint and positioning device systems purchased or placed in service after 2/1/97 must be labeled ANSI A10.14-1991.
- Guardrail Systems
- Safety Net Systems
- Personal Fall Arrest Systems
- Covers (for holes in roofs, etc.)
- Controlled Access Zones
- Safety Monitoring Systems
- Positioning Systems

- Project Managers should implement the most suitable form of fall protection systems for each project, task, and associate. Decisions and action required to implement fall protection must occur prior to operations.
- The following are examples of each of the eight (8) types of fall protection systems that must be used when workers are working at or above six (6) foot elevations:

- **Guardrail Systems**

- The top edge of the guardrail shall be 42 inches (+/-3 inches) above the walking/working level. Midrails shall be installed between the top edge of the guardrail system and the walking/working surface.
- Midrails shall be installed at a height halfway between the top edge of the guardrail system and the walking/working surface.
- Guardrail systems shall be capable of withstanding without failure, a force of at least 200 pounds in any outward or downward direction, at any point along the top edge.
- When the 200 pound test load is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 39 inches above the walking/working level. Guardrail system components selected and constructed will be deemed to meet this requirement.
- Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding, without failure, a force of at least 150 pounds applied in any downward or outward direction at any point along the midrail or other member.
- Guardrail systems shall be so surfaced as to prevent injury to an associate from punctures or lacerations, and to prevent snagging of clothing.
- If wire rope is used for top rails, it shall be flagged at not more than 6-foot intervals with high-visibility material.
- When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section shall be placed across the access opening between guardrail section when hoisting operations are not taking place.
- When guardrail systems are used at holes, they shall be erected on all unprotected sides or edges of the hole.
- When guardrail systems are used around holes used for the passage of materials, the hole shall have not more than two sides provided with removable guardrail sections to allow the passage of materials. When the hole is not in use, it shall be closed over with a cover, or a guardrail system shall be provided along all unprotected sides or edges.

- When guardrail systems are used around holes which are

used as points of access (such as ladderways), they shall be provided with a gate, or be so offset that a person cannot walk directly into the hole.

- Guardrail systems used on ramps and runways shall be erected along each unprotected side or edge.
- Manila, plastic or synthetic rope being used for top rails or midrails shall be inspected as frequently as necessary to ensure that it continues to meet the strength requirements of 200 pounds and 150 pounds.

- ***Personal Fall Arrest Systems***

- Personal fall arrest systems and their use shall comply with the provisions set forth below. Effective January 1, 1998, body belts are not acceptable as part of a personal fall arrest system. NOTE: The use of a body belt in a positioning device system is acceptable.
- Connectors shall be drop forged, pressed or formed steel, or made of equivalent materials.
- Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.
- Dee-rings and snaphooks shall be proof-tested to a minimum tensile load of 3,600 pounds without cracking, breaking, or taking permanent deformation.
- Snaphooks shall be sized to be compatible with the member to which they are connected to prevent unintentional disengagement of the snaphook by depression of the snaphook keeper by the connected member, or shall be a locking type snaphook designed and used to prevent disengagement of the snaphook by the contact of the snaphook keeper by the connected member. Effective January 1, 1998, only locking type snaphooks shall be used.
- Unless the snaphook is a locking type and designed for the following connections, snaphooks shall not be engaged:
 - directly to webbing, rope or wire rope;
 - to each other;
 - to a dee-ring to which another snaphook or other connector is attached;
 - to a horizontal lifeline; or
 - to any object which is incompatibly shaped or dimensioned in relation to the snaphook such that unintentional disengagement could occur by the connected object being able to depress the snaphook keeper and release itself.
- On suspended scaffolds or similar work platforms with horizontal lifelines which may become vertical lifelines, the devices used to connect to a horizontal lifeline shall be capable of locking in both directions on the lifeline.
- Horizontal lifelines shall be designed, installed, and used,

under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.

- Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds.
- When vertical lifelines are used, each associate shall be attached to a separate lifeline.
- Lifelines shall be protected against being cut or abraded.
- Self-retracting lifelines and lanyards which automatically limit free fall distance to 2 feet or less shall be capable of sustaining a minimum tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.
- Self-retracting lifelines and lanyards which do not limit free fall distance to feet or less, ripstitch lanyards, and tearing and deforming lanyards shall be capable of sustaining a minimum tensile load of 5,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.
- Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body belts and body harnesses shall be made from synthetic fibers.
- Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per associate attached, or shall be designed, installed, and used as follows:
 - as part of a complete personal fall arrest system which maintains a safety factor of at least two; and
 - under the supervision of a qualified person.
- Personal fall arrest systems, when stopping a fall shall:
 - limit maximum arresting force on an associate to 1,800 pounds when used with a body harness;
 - be rigged such that an associate can neither free fall more than 6 feet, nor contact any lower level, where practicable, the anchor end of the lanyard will be secured at a level not lower than the employee's waist;
 - bring an associate to a complete stop and limit maximum deceleration distance an associate travels to 3.5 feet; and,
 - have sufficient strength to withstand twice the potential impact energy of an associate free falling a distance of 6 feet or the free fall distance permitted by the system, whichever is less.
- The attachment point of the body belt shall be located in the center of the wearer's back. The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head.
- Body belts, harnesses, and components shall be used only for associate protection (as part of a personal fall arrest

system or positioning device system) and not to hoist materials.

- Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for associate protection until inspected and determined by a competent person to be undamaged and suitable for reuse.
- Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.
- Personal fall arrest systems shall not be attached to guardrail systems, nor shall they be attached to hoists.
- When a personal fall arrest system is used at hoist areas, it shall be rigged to allow the movement of the associate only as far as the edge of the walking/working surface.

- ***Positioning Systems***

- Positioning device systems will conform to the following: Positioning devices will be rigged so that an employee cannot free fall more than 2 feet. These devices will be inspected prior to each use for wear, damage and deterioration. Damaged or defective devices will immediately be taken out of service. Anchor points for positioning device systems must be capable of supporting two times the intended load or 3,000 pounds, whichever is greater.

- ***Warning Line Systems***

- The warning line shall be erected around all sides of the roof work area.
- When mechanical equipment is not being used, the warning line shall be erected not less than 6 feet from the roof edge.
- When mechanical equipment is being used, the warning line shall be erected not less than 6 feet from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet from the roof edge which is perpendicular to the direction of mechanical equipment operation.
- Points of access, materials handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path formed by two warning lines.
- When the path to a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, shall be placed across the path at the point where the path intersects the warning line erected around the work area, or the path shall be offset such that a person cannot walk directly into the work area.
- Warning lines shall consist of ropes, wires, or chains, and supporting stanchions erected as follows:

- The rope, wire, or chain shall be flagged at not more than 6-foot intervals with high-visibility material;
- The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches from the walking/working surface and its highest point is no more than 39 inches from the walking/working surface;
- After being erected, with the rope, wire, or chain attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;
- The rope, wire, or chain shall have a minimum tensile strength of 500 pounds and after being attached to the stanchions, shall be capable of supporting, without breaking, the loads applied to the stanchions.
- The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.
- Mechanical equipment on roofs shall be used or stored only in areas where associates are protected by a warning line system, guardrail system, or personal fall arrest system.
- **Controlled Access Zones**
 - When used to control access to areas where leading edge and other operations are taking place the controlled access zone shall be defined by a control line or by any other means that restricts access.
 - When control lines are used, they shall be erected not less than 6 feet nor more than 25 feet from the unprotected or leading edge, except when erecting precast concrete members.
 - When erecting precast concrete members, the control line shall be erected not less than 6 feet nor more than 60 feet or half the length of the member being erected, whichever is less, from the leading edge.
 - The control line shall extend along the entire length of the unprotected or leading edge and shall be approximately parallel to the unprotected or leading edge.
 - When used to control access to areas where overhand bricklaying and related work are taking place:
 - The controlled access zone shall be defined by a control line erected not less than 10 feet (3.1 m) nor

- more than 15 feet from the working edge.
- The control line shall extend for a distance sufficient for the controlled access zone to enclose all associates performing overhand bricklaying the related work at the working edge and shall be approximately parallel to the working edge.
- Additional control lines shall be erected at each end to enclose the controlled access zone.
- Only associates engaged in overhand bricklaying or related work shall be permitted in the controlled access zone.
- Control lines shall consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions as follows:
 - Each line shall be flagged or otherwise clearly marked at not more than 6-foot (1.8 m) intervals with high-visibility material.
 - Each line shall be rigged and supported in such a way that its lowest point (including sag) is not less than 39 inches from the walking/working surface and its highest point is not more than 45 inches (50 inches when overhand bricklaying operations are being performed) from the walking/working surface.
 - Each line shall have a minimum breaking strength of 200 pounds.
 - Signs will also be posted to warn unauthorized employees to stay out of the controlled access zone.
- On floors and roofs where guardrail systems are in place, but need to be removed to allow leading edge work to take place, only that portion of the guardrail necessary to accomplish that day's work shall be removed.
- **Safety Monitoring Systems**
 - The employer shall designate a competent person to monitor the safety of other associates and the employer shall ensure that the safety monitor complies with the following requirements:
 - The safety monitor shall be competent to recognize fall hazards;
 - The safety monitor shall warn the associate when it appears that the associate is unaware of a fall hazard or is acting in an unsafe manner;
 - The safety monitor shall be on the same walking/working surface and within visual sighting distance of the associate being monitored;
 - The safety monitor shall be close enough to communicate orally with the associate; and
 - The safety monitor shall not have other responsibilities which could take the monitor's attention from the monitoring function.
 - No associate, other than an associate engaged in roofing work (on low-sloped roofs) or an associate covered by a fall

protection plan, shall be allowed in an area where an associate is being protected by a safety monitoring system.

- Each associate working in a controlled access zone shall be directed to comply promptly with fall hazard warnings from safety monitors.

- **Covers**

- Covers located in roadways and vehicular aisles shall be capable of supporting, without failure, at least twice the maximum axle load of the largest vehicle expected to cross over the cover.
- All other covers shall be capable of supporting, without failure, at least twice the weight of associates, equipment, and materials that may be imposed on the cover at any one time.
- All covers shall be secured when installed to prevent accidental displacement by the wind, equipment, or associates.
- All covers shall be color coded or they shall be marked with the word "HOLE" or "COVER" to provide warning of the hazard. NOTE: This provision does not apply to cast iron manhole covers or steel grates used on streets or roadways.

- **Floor Openings and Floor Holes**

- Floor openings shall be guarded by using a standard railing and toeboard.
- All floor holes shall be covered with material that is capable of supporting the maximum weight load intended.
- All Ladderways Floor Openings or Platforms
 - Ladderways shall be guarded with standard railings and toeboards.
 - Platforms shall be guarded with standard railings and toeboards.
- Hatchways and Chute Floor Opening
 - Hatchways shall be guarded with hinged cover and standard railings with only one exposed side. The hinged cover shall be closed or side shall be guarded with removable standard railings.
 - Chutes shall be guarded with removable standard railings and toeboard on not more than two sides of the opening and a fixed standard railing and toeboard. All standard railings shall be kept in place when the chute is not in use.
- Skylights, Pits and Trap-Door Floor Opening
 - Skylights shall be guarded with fixed standard railings on all sides.
 - Pits and trap-doors shall be guarded with floor opening covers or standard railings on all exposed

sides by removable standard railings.

Training Requirements

The Safety Representative's designated representative and/or competent person shall provide training for each associate to recognize the hazards of falling and shall train each associate in the following procedures:

- The nature of fall hazards in the work area;
- The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;
- The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used;
- The role of each associate in the safety monitoring system when this system is used;
- The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs;
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and
- The role of associates in fall protection plans;
- The standards contained in the subpart.

The employer shall verify fall protection by preparing a written certification record. The written certification record shall contain the name of the associate trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer. When the Safety Representative has reason to believe that any affected associate who has already been trained does not have the understanding and skill required, the Safety Representative shall retrain each such associate. Circumstances where retraining is required include, but are not limited to, situations where:

- Changes in the workplace render previous training obsolete; or
- Changes in the types of fall protection systems or equipment to be used render previous training obsolete; or
- Inadequacies in an affected associate's knowledge or use of fall protection systems or equipment indicate that the associate has not retrained the requisite understanding or skill.

Project Managers will train workers in the avoidance of floor, roof, and wall opening hazards through the use of toolbox talks and daily work instructions.

Section 43- Cal/OSHA Hazard Communication (HazCom)

Purpose

To properly educate and protect employees from exposures to hazardous chemicals in the workplace.

Definitions

Chemical - Any substance, or mixture of substances.

Exposure or Exposed - An employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

Flammable liquid - Any liquid having a flashpoint at or below 199.4°F. Flammable liquids are divided into four categories as follows:

-Category 1 shall include liquids having flashpoints below 73.4°F and having a boiling point at or below 95°F.

-Category 2 shall include liquids having flashpoints below 73.4°F and having a boiling point above 95°F.

-Category 3 shall include liquids having flashpoints at or above 73.4°F and at or below 140 °F. When a Category 3 liquid with a flashpoint at or above 100°F is heated for use to within 30°F of its flashpoint, it shall be handled in accordance with the requirements for a Category 3 liquid with a flashpoint below 100°F.

-Category 4 shall include liquids having flashpoints above 140°F and at or below 199.4°F. When a Category 4 flammable liquid is heated for use to within 30°F of its flashpoint, it shall be handled in accordance with the requirements for a Category 3 liquid with a flashpoint at or above 100°F.

Flash point - The minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid.

Globally Harmonized System - The Globally Harmonized System (GHS) is an international approach to hazard communication, providing agreed criteria for classification of chemical hazards, and a standardized approach to label elements and safety data sheets. It is based on major existing systems around the world, including OSHA's Hazard Communication Standard and the chemical classification and labeling systems of other US agencies.

Hazard Category - The division of criteria within each hazard class, (e.g., oral acute toxicity and flammable liquids include four hazard categories). These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

Hazard Class - The nature of the physical or health hazards, (e.g., flammable solid, carcinogen, oral acute toxicity).

Hazard Not Otherwise Classified (HNOC) - An adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

Hazard Statement - A statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

Hazardous Chemical - Any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

Health Hazard - A chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to §1910.1200—Health Hazard Criteria.

Immediate Use - The hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Label - An appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

Label Elements - The specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

Mixture - A combination or a solution composed of two or more substances in which they do not react.

Physical Hazard - A chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas.

Pictogram - A composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

Precautionary Statement - A phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

Product Identifier - The name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS.

Safety Data Sheet (SDS) - A written or printed material concerning a hazardous chemical that is prepared in accordance with paragraph (g) of this section.

Signal Word - A word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "DANGER" and "WARNING." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

Substance - Chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Responsibilities

The Safety Officer, Facilities Manager, Shop Foreman and/or Project Manager must label all containers of hazardous materials located at the workplace, not previously labeled by the manufacturer.

The Safety Officer will maintain SDS binders at the main office, as well as administering the HAZCOM written program and training.

The Project Managers will be responsible for ensuring that labeling practices are observed and complied with per the HAZCOM program requirements in the workplace as materials arrive (new and used).

Procedures

All Safety Management Group employees will be aware of the potentially hazardous materials used on the premises. These materials will be identified with warning labels and SDS's will be kept for each.

This program includes guidelines on identification of chemical hazards and the preparation and proper use of container labels, placards and other types of warning devices. To understand the potential dangers of chemicals, employees will follow these HAZCOM written program guidelines:

- Chemical Inventory
 - Safety Management Group maintains an inventory of all known chemicals in use on the worksite. A chemical inventory list is available from the Safety Officer.
 - Hazardous chemicals brought onto the worksite will be included on the hazardous chemical inventory list.

- Container Labeling

- All chemicals on site will be stored in their original or approved containers with a proper label attached, except small quantities for immediate use. A proper label is one that contains the material's product identifier, signal word(s), hazard statement(s), pictogram(s), precautionary statement(s), and chemical manufacturer information (name, address, and telephone number). Any containers not properly labeled should be given to the Safety Officer for proper handling.
 - Workers may dispense chemicals from original containers only in small quantities intended for immediate use. Any chemical left after work is completed must be returned to the original container or the Safety Officer for proper handling.
 - All secondary containers must have the appropriate warning label.
 - Safety Management Group will rely on manufacturer applied labels whenever possible, and will ensure that these labels are maintained. Containers that are not labeled, or from which the manufacturer's label has been removed, will be relabeled by the Safety Officer or Project Manager.
 - Safety Management Group will ensure that each container is labeled to identify any hazardous chemicals inside and any appropriate hazard warnings.
- Safety Data Sheets (SDS)
 - Safety Management Group will have a safety data sheet for each hazardous substance which is used.
 - Employees working with a hazardous chemical may request a copy of the safety data sheet (SDS). Requests for an SDS should be made to the Safety Officer. SDS's will be made available, upon request, to employees, their designated representatives, the Assistant Secretary & the Director in accordance with the requirements of 29 CFR 1910.1020(e).
 - SDS's should be available, and standard chemical reference may also be available, on the site to provide immediate reference to chemical safety information. SDS's are required for each hazardous chemical used.
 - All SDS's must include the following information:
 - Section 1 Identification;
 - Section 2 Hazard(s) identification;
 - Section 3 Composition/information on ingredients;
 - Section 4 First aid measures;
 - Section 5 Fire-fighting measures;
 - Section 6 Accidental release measures;
 - Section 7 Handling and storage;
 - Section 8 Exposure controls/personal protection;
 - Section 9 Physical and chemical properties;
 - Section 10 Stability and reactivity;
 - Section 11 Toxicological information;
 - Section 12 Ecological information;
 - Section 13 Disposal considerations;
 - Section 14 Transport information;
 - Section 15 Regulatory information;
 - Section 16 Other information, including date of preparation or last revision.
- Employee Training

- Employees will be trained upon initial assignment and annually thereafter, to work safely with hazardous chemicals. Employee training will include:
 - Methods that may be used to detect a release of hazardous chemicals in the work place
 - Physical and health hazards associated with chemicals
 - Protective measures to be taken
 - Safe work practices, emergency responses and use of personal protective equipment
 - Whenever a new hazard is introduced into their work area
 - Information on the Hazard Communication Standard including:
 - Labeling and warning systems
 - An explanation of Safety Data Sheets
 - Personal Protective Equipment (PPE)
 - The Project Manager will supply the required PPE. Any employee found in violation of PPE requirements may be subject to disciplinary actions up to and including discharge.
 - Documentation of training will include the employee name, training dates, type of training and trainer(s). Training documentation will be maintained for at least one year.

- Emergency Response
 - Employees must report any incident of over exposure or spill of a hazardous chemical/substance to the Project Manager at once.
 - The Project Manager will ensure that proper emergency response actions are taken in leak/spill situations.

- Hazards of Non-Routine Tasks
 - The Project Manager will inform employees of any special tasks that may arise which would involve possible exposure to hazardous chemicals. Employees will be trained on the hazards associated with those chemicals.
 - The Project Manager will review safe work procedures and use of required PPE prior to the start of non-routine tasks. Where necessary, areas will be posted to indicate the nature of the hazard involved.

- Informing Other Employers
 - Other on-site employers are required to adhere to the provisions of the Hazard Communication Standard.
 - Information on hazardous chemicals known to be present will be exchanged with other employers. Employers will be responsible for providing necessary information to their employees.
 - A copy of the HAZCOM program, including SDS's will be present on each jobsite.
 - Safety Management Group's written hazard communication program will be readily accessible to other on-site employers.
 - All employees currently speak English, appropriate signage will be used if non-English speaking employees are present.

Section 44- Cal/OSHA Rigging

Purpose

The purpose of this training program is to ensure a safe and incident free lifting operation in accordance with Cal/OSHA California Code of Regulations, Title 8, Section 5043.

Scope

When work is performed in California on a non-owned or operated site, the operator's program shall take precedence, however, this document covers Safety Management Group employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Key Responsibilities

- Management shall determine if this program is required for regulatory compliance within his/her region.
- Management shall select a training facility or use an in-house qualified trainer to supply and document the training.
- The supervisor shall verify that each of their employees have the proper training before being involved in rigging operations.
- Only qualified and trained personnel can attach or detach lifting equipment to loads or lifting loads.
- Employees shall follow the requirements of this procedure.

Procedure

General

Only "qualified riggers" are allowed to attach any loads to a lifting hook and only "qualified operators" are allowed to operate a crane while engaged in lifting operations.

Rigging Requirements

- **Pre-Use Inspection of Rigging Equipment** - Each day before being used, the sling and all fastenings and attachments shall be inspected for damage or defects by a qualified person. Additional inspections shall be performed during sling use, where service conditions warrant. Damaged or defective slings shall be immediately removed from service.
- Defective rigging must be removed from service. Slings and hooks that are damaged or defective shall not be used. Defective slings should be removed from use and destroyed.
- Slings are not shortened. Chain or wire rope slings shall not be shortened with knots or bolts or other makeshift devices. Slings shall not be kinked or knotted.
- The safe working load is marked on rigging equipment. Slings and shackles shall have permanently affixed and legible identification markings, as prescribed by the manufacturer, that indicate the recommended safe working load.

Safe Use of Rigging

- Examples of safe practices include slings and shackles shall not be loaded in excess of their rated capacities as prescribed by the sling manufacturer on the identification markings permanently affixed to the sling. Slings used in a basket hitch shall have the loads balanced to prevent slippage. Slings shall be padded or protected from the sharp edges of their loads. Hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load. A sling shall not be pulled

from under a load when the load is resting on the sling and damage to the sling may result. Slings shall be set to avoid slippage.

- Suspended loads are not lifted over workers. Suspended loads shall be kept clear of all obstructions. All employees shall be kept clear of loads about to be lifted and of suspended loads.
- Hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load.
- Shock loading is prohibited. Whenever any sling is used, shock loading is prohibited.
- Deformed hooks or rings shall be replaced or repaired and reshaped under proper metallurgical control and proof tested.
- Rigging is used and/or maintained in accordance with manufacturer's recommendations. Rigging must be used and maintained in accordance with manufacturer's recommendations. Hooks and shackles shall only be used in a manner recommended by the manufacturer. Proof coil steel chain, also known as common or hardware chain, or other chain not recommended for slinging or hoisting by the manufacturer, shall not be used for hoisting purposes. Wrought iron chains in constant use shall be annealed or normalized at intervals not exceeding 6 months when recommended by the manufacturer. The chain manufacturer shall be consulted for recommended procedures for annealing or normalizing. Alloy chains shall not be annealed. Deformed hooks or rings shall be replaced or repaired and reshaped under proper metallurgical control and proof tested. Safety Management Group shall follow proper annealing or normalizing procedures done only in accordance with the chain manufacturer's specifications.
- All hooks for which no applicable manufacturer's recommendations are available shall be tested to twice the intended safe working load before they are initially put into use.
- Proof Testing of Rigging Equipment - Special custom design grabs, hooks, clamps or other lifting accessories for such units as modular panels, prefabricated structures and similar materials, shall be marked to indicate the safe working loads and shall be proof-tested to 125 percent of the rated load prior to use.
- Tag lines shall be used unless their use creates an unsafe condition.

Training

Safety Management Group employees shall display their competency in the following topics:

- The selection of proper hardware (eye bolts, shackles, hooks, wire rope products, synthetic slings, chain slings, etc.) for the correct application (weight, hitches, angles, temperatures, center of gravity, etc.).
- The inspection of the selected hardware before, during and after the lift.
- The proper methods of securing the load, attaching the load to the hook, lifting the load, handling of the load during the movement of the load and lowering and placement of load.
- The proper storage of the rigging equipment.

Section 45- Working Alone

Purpose

SMG will provide a safe work environment for its associates. In doing so, SMG will take all reasonable and practical measures to eliminate or minimize injury or incident risks associated with the nature of the work performed when associates work alone. SMG shall establish site specific procedures for associates working alone.

Objectives

To minimize risk to associates who may work alone, and assistance is not readily available, SMG will:

- Conduct written hazard assessments to identify existing or potential working alone hazards.
- Take measures to eliminate or control the hazards of working alone at SMG worksites.
- Ensure that affected associates are informed of the hazards and methods used to control or eliminate them.
- Provide an effective system for communication between any associate who works alone and people capable of assisting the associate.
- Ensure all incidents (work related or otherwise) are reported, investigated, and documented.
- Review the Working Alone Plan at least annually or more frequently if there is a change in work arrangements which could adversely affect an associate's well-being or a report that the system is not working effectively.

Key Responsibilities

Safety Director

- Conducts a hazard assessment to identify existing or potential hazards related to the nature of the work or the work environment given the circumstances of the work when working alone.
- Responsible for the review, implementation, and maintenance of the local worksite Working Alone Plan.
- Communicate this policy and its procedures to associates who work alone.
- Annually review the effectiveness of the hazard controls and procedures and make improvements as required.

Worksite Regional Manager

- Responsible for the implementation and maintenance of the Working Alone Plan for their project and ensuring all assets are made available for compliance with the procedure.
- Take all reasonable and practical steps to minimize or eliminate identified working alone risks.
- Review the hazard assessment results and provide recommendations to management to minimize or eliminate identified working alone risks.
- Review annually the effectiveness of the policy and guidelines and make changes as required by consulting with management staff and associate representatives.
- Respond to associate's concerns related to working alone and communicate these to management.
- Report all incidents of work site incidents immediately.
- Participate in work site hazard assessments and the implementing of procedures to eliminate or control hazards of working alone.

Safe Work Procedures

This procedure applies if an associate is working alone at a work site where assistance is not readily available, if there is an emergency, or the associate is ill or injured.

Worksite Assessment

A hazard assessment for working alone will anticipate work and travel time, weather, communication, type of work, associate medical conditions and training. The hazard assessment shall address hazards and identify control measures to minimize risk associated with working alone.

The hazard assessment will be conducted on a project by project or site basis as circumstances vary between locations and conditions. To assess this hazard, SMG should review records, past incidents, and identify measures or actions needed to correct any hazards. The assessment should involve:

- Participation by associates through methods such as one-on-one interviews, kick off safety meetings, etc.
- The assessment should utilize information from associates about their experiences working alone, their current concerns, and their suggestions for improvement.
- Consideration of the time interval between checks and the procedure to follow in case the associate cannot be contacted, including provisions for emergency rescue.

Plan

SMG must develop and implement a written procedure for checking the well-being of an associate assigned to work alone or in isolation under conditions which present a risk of disabling injury if the associate might not be able to secure assistance in the event of injury or other misfortune.

Considerations such as length of time missing, weather conditions, physical fitness, etc., must be factored into the site-specific Working Alone program. The program must specify procedures for emergency response including provisions for contacting appropriate local officials. The program shall identify specific criteria to determine when an associate search is necessary.

Communication and Regular Contact Person System

The use of a radio, cellular/satellite phone, electronic monitoring device or another form of direct, reliable correspondence shall be used to establish an effective means of communication between the lone associate and designated check person.

Each site-specific Working Alone Plan shall address having an established contact person. A check-in/check-out process where associates are monitored or contacted at regular intervals will be established. Associates must be monitored at regular intervals, or the individual contacts the associate at pre-determined intervals based on determinations made in the hazard assessment.

Individual(s) by job function responsible for establishing contact with the affected associate, as well as a back-up form of communication, will be established for each site-specific plan. The Safety Manager, Regional Manager or designee is responsible for check-in with the lone associate at regular intervals.

Backup and Documentation

Backup form of communication in the event primary communication (cell phone or land line) is unavailable will be via satellite phone or if electronic communication is not practicable or readily

available at the worksite, SMG must ensure that a representative of SMG or another competent associate visits the associate at regular intervals. SMG shall document communication associate status at the check in intervals.

These visits or contacts shall be at intervals of time appropriate to the nature of the hazards associated with the associate's work.

Limitations on or Prohibitions of Specified Activities

- No heavy equipment will be operated if an associate is alone.
- No hot work will occur if an associate is alone.
- No working at heights will occur if an associate is alone and requiring a personal fall arrest system.
- Other limitations will be placed based on the site-specific hazard assessment.

Minimum Training or Experience

All associates will be trained (if working alone is a hazard at that location) in:

- Any revision to the written local Working Alone Plan and safe work practices.
- Being informed of working alone hazards at the SMG worksite and the methods used to control or eliminate them.
- The methods for identification, hazard reduction and prevention when working alone, and dealing with situations or individuals that present a potential risk.
- An associate required to work alone, and any person assigned to check on the associate, must be trained in the written procedure for checking the associate's well-being.
- All training shall be documented.

Provisions of PPE

- Cold weather clothing shall be worn when appropriate if an associate is alone.
- Additional PPE for associates working alone will be identified in the site-specific hazard and PPE assessment process.

Safe Work Practices

Controls implemented at SMG worksites shall, as a minimum:

- Restricted building access to buildings - card keys or regular keys after regular working hours.
- Office doors are to be locked when working alone after hours.
- Have associates check road reports and weather forecast before traveling and NOT allow travel if road conditions are dangerous.
- Develop a travel plan that includes rest breaks, a procedure for tracking overdue associates, and emergency contact information.
- Ensure all SMG Company vehicles are equipped with a first aid kit, fire extinguisher, active telematics device, and the associate has a working mobile device.
- Advise associates to travel with another associate when possible.
- Advise associates to park close to the building in the evening.
- Post signage, emergency contact information, and develop a communication system.
- Report suspicious activity to security or a supervisor.

Provision of Emergency Supplies

- All vehicles shall contain the appropriate emergency supplies including food, water, warm clothing during winter, and other supplies as determined by the hazard assessment.
- Associates working alone shall have spare batteries for communication devices in case of power failure, a radio for local weather conditions, and other equipment as determined by the hazard assessment.
- If an associate requires personal medication, they must ensure they have sufficient supplies available.

Review & Updating Working Alone Plan

- The hazard assessment and Working Alone Plan at each SMG worksite must be reviewed at least on an annual basis or more frequently if there is a change in work processes or arrangements which could adversely affect an associate's well-being that are introduced or changed.
- The local Working Alone Plan shall also be revised if there is any indication or report that the plan is not working effectively or needs changing.

Training

Training on this policy will occur at New Hire Orientation, annually thereafter.

Section 46- Forms

ACCIDENT INVESTIGATION PROCEDURES

1. Provide emergency response

FIRST PRIORITY IS SAFETY AND HEALTH OF PEOPLE.

- Notify appropriate people – medical, fire, rescue.
 - Depending on seriousness of incident, Superintendent, Manager, or Leadman will accompany injured associate to doctor.
 - Provide care for the injured.
 - “Safe” the area. Prevent other accidents.
 - Notify Safety Representative, Project Manager, and members of investigation team.
-

2. Secure the area

- Observe the big picture.
 - Secure, barricade, and isolate the scene.
 - Shut off electrical power and other utilities.
 - Bleed or isolate pressurized systems.
 - Block mechanical equipment—prevent movement.
 - Check air quality.
 - Issue personal protective equipment.
 - Provide emergency power, lighting, air, etc.
 - Secure the scene and protect the evidence. (Rope off or post a guard).
 - Determine extent of damage to equipment, material, or building facilities.
 - Issue lockout/tagout permits.
 - Control crowd and onlookers.
 - COLLECT TRANSIENT AND PERISHABLE EVIDENCE IMMEDIATELY.**
 - Take pictures from several angles or make sketches. Note positions of tools, equipment, material, layout, etc. Note things that melt or evaporate, tire tracks, footprints, loose material on the floor.
 - Collect operating logs and records.
 - Record serial numbers of equipment and identify maintenance records.
 - Put dimensions on all sketches.
 - Sign and date all photos.
-

3. Identify Potential Witnesses

- Identify People
 - Involved in accident
 - Eyewitnesses to accident
 - People who heard the accident
 - People who arrived at the scene after the accident
 - People who were at the scene prior to the accident
 - Anyone who may have useful information about the accident
-

4. Use an Investigation Kit

Safety Representative has a master kit. Each jobsite should have all items except the tape recorder.

- Camera (Video, Polaroid, 35 mm) Film
 - Tape Recorder
 - Measuring Devices
 - Sample Collection Containers
 - Interview/investigation Forms
 - Flashlight
 - Barricade Markers
 - Tape
 - Lockout/Tagout
 - Padlocks
-

5. Procure Hard Evidence and Record Data

- Get samples of all possible material at the site.
 - Find all equipment pieces.
 - Get photos from all possible sights and angles.
 - Use appropriate forms.
 - First Aid Reports
 - Injury Reports
 - Accident Investigation Reports
 - Supplementary record of occupational injuries and illnesses
 - Supervisor's Report
 - Injury and illness record of associate
 - OSHA 300 Log and First Report of Injury 301
 - Note general conditions that may have contributed to the accident.
 - Housekeeping
 - Periodic Rule or Procedure Violation
 - Work Environment or Layout
 - Training, Experience, or Supervision
 - Floor or Surface Conditions
 - Alcohol or Drug Abuse
 - Lighting or visibility
 - Associate Morale or Attitude
 - Noise or distractions
 - Health or Safety Record
 - Air Quality, Temperature or Weather
 - Equipment Condition or Malfunction history
-

6. Conduct Interviews with Witnesses

Assure witnesses that you are not looking for someone to blame; you are looking for the root cause of the accident.

DO:

- Interview as soon as possible.
- Interview at the accident scene
- Take notes or use a tape recorder
- Ask open-ended questions

- Avoid bias
- Put the witness at ease
- Repeat the story back to the witness
- End interview on a positive note

DON'T:

- Pressure the witness
- Blame the witness for the accident
- Interrupt an answer
- Ask questions that can be answered with a yes or no
- Ask "why" questions and opinion questions first

ALWAYS:

- Stress that you only want the facts
- Stress that you want to prevent the next accident
- Take the extra time to get understanding

7. Review Data

- Look at all other possible data or records including:
 - Inspection Reports
 - Maintenance Reports
 - Accident Reports and Analysis Results
- Identify any patterns or trends
- Analyze all data to determine root causes

8. Prepare an Investigation Report

Involve Project Manager and Safety Representative. State facts, not opinion.

- Record any key facts in a written report. Use Accident Investigation Report Form
 - Write down the accident story
 - Note the undisputed facts and the disputed facts
 - Compare the undisputed facts, the disputed facts, and the physical evidence to establish the best answer.
 - Finalize the story and identify the root cause.
- Complete the Accident Investigation Report
 - Who had the accident?
 - When did it happen? (time/date)
 - When was it reported?
 - What object/agent caused the injury?
 - Who had most control of the object?
 - What happened?
 - What things caused/contributed to the accident?
 - Direct cause(s)
 - Indirect cause(s)
 - Root cause(s)
 - What can be done to prevent recurrence?
 - Who will do it?
 - When will it be done?
 - Names, addresses, phone numbers, and driver's license numbers of witnesses

- Photos (signed and dated)
 - Evidence tagged, recorded and kept
 - Develop interim reports during extended investigations to keep everyone informed
-

9. Implement Corrective Actions

Implement corrective actions to eliminate root causes in all parts of the system.

- Failure to complete this step can lead to criminal charges if accident re-curs because hazards and solutions have been identified and documented in an accident report.
-

10. Follow-up, Classify and Analyze Data and Communicate Results

Compile and analyze all accident and incident data on a regular basis, at least monthly and yearly. Tabulate and cross tabulate to study patterns.

Answer the following questions:

- Are all parts of the company committed to hazard control?
 - Are there patterns to injuries?
 - What is the quality of supervision and management?
 - Are associates empowered to take individual action?
-
-

**Safety Management Group
ACCIDENT/NEAR MISS INVESTIGATION REPORT**

Name (Injured) _____ Project: _____

Address/Location _____

When

Accident Near Miss Date and Time _____
 Report to Supervisor or First Aid Delayed? Yes _____ No _____ If
 Yes, Why _____

Witnesses

Witnesses (statements if possible) _____

Injury/Loss

Nature/Extent of Injuries or Property Damage _____

Where

Exact Location where Accident Occurred _____

What/How

Type of Accident _____ Was Associate Doing Something Other
 Than Required Duties at time of Accident? _____ If so, what and
 why _____

Description of Accident (Detail what Associate was doing, how he/she was
 doing it, and what physical objects, tools, machines, structures or equipment
 were involved) _____

Why

Describe What Are Believed to be the Accident Causes and Comment Fully
 Here _____

Prevention

What Should Be Done to Prevent Recurrence of this Type of Accident? _____

Comments: _____

Name: _____

Signature: _____

FITNESS FOR DUTY
REASONABLE CAUSE/OBSERVATION DOCUMENTATION

All associates, including yourself, occasionally exhibit some performance problems and behavior changes. Sometimes these problems and changes cause concern that an associate may be unfit to perform the employer's regular duties as a result of substance abuse. Below is a checklist of observations for you to use in determining when there is reasonable cause for such concern and possible substance testing.

NAME _____ LOCATION _____

DATE _____ TIME _____

The onset of one or more of the following observations may be cause for substance abuse testing.

- | | | | |
|-------------------------------------|-------------------------------------------|-------------------------------------|-------------------------------------------------|
| SPEECH | AWARENESS | BALANCE | PHYSICAL INDICATORS |
| <input type="checkbox"/> Incoherent | <input type="checkbox"/> Confused | <input type="checkbox"/> Swaying | <input type="checkbox"/> Pupil dilated/red eyes |
| <input type="checkbox"/> Muddled | <input type="checkbox"/> Sleepy | <input type="checkbox"/> Staggering | <input type="checkbox"/> Cold sweats/tremors |
| <input type="checkbox"/> Slurred | <input type="checkbox"/> Erratic Behavior | <input type="checkbox"/> Falling | <input type="checkbox"/> Alcohol/marijuana odor |

When you observe behaviors that may interfere with the associate's performance, you should note and document your observations. The associate should be counseled about any performance problems, and any explanations volunteered or offered by the associate should be noted. Although work related performance or behavior problems may be cause for substance abuse testing, continued work related performance and behavior problems may result in reassignment, or discipline up to and including termination of employment.

WORK OBSERVATIONS

- Unexplained or excessive absenteeism or tardiness
- Unexplained or excessive absence from work area.
- Frequent trips to water cooler, or restroom
- Difficulty in understanding/recalling instructions
- High frequency of accident occurrence

MOODS

- Withdrawn/sad/morbid
- Mood swings high and low
- Extremely sensitive/irritable
- Nervousness/agitation

PHYSICAL INDICATORS

- Rapid Breathing
- Inappropriate wearing of sunglasses

COMMENTS:

To the best of my knowledge and belief this report represents the actions, appearances and/or conduct observed by me and upon which I base my decision to suggest said associate to be tested or be further evaluated by a supervisor.

ASSOCIATE _____

SUPERVISOR _____ WITNESS _____

NOTE: This report is to be used only as an observation aid, and will remain absolutely confidential

**Safety Management Group TRENCHING AND EXCAVATION CHECKLIST
29 CFR 1926.651**

Date: ____ / ____ / ____

Time: ____ a.m. ____ p.m.

Weather (Circle One): Dry Rainy Previous Rain

Competent Person (Associate Name): _____ Phone: _____

Occupation (SIC Code): _____

Employer Name: _____

Length of Experience in this Occupation: _____

Length of Experience with this Employer: _____

1. Inspections - (if there is potential for associate exposure)

- Has the contractor's competent person conducted daily inspections?
 - Of the excavation(s)? _____ Yes _____ No
 - Of the adjacent area(s)? _____ Yes _____ No
 - Of protective system(s)? _____ Yes _____ No

- When were these inspections conducted?
 - Prior to the start of work? _____ Yes _____ No
 - As needed throughout the work shift? _____ Yes _____ No
 - After rainstorm or other hazard increasing occurrence? _____ Yes _____ No

2. Protective Systems - General

- Has the excavation ground been examined for indication of cave-in potential?
_____ Yes _____ No

- Inspection of material or equipment used for protective systems and evaluated its suitability for continued use? _____ Yes _____ No
Please explain if No:

- Use the OSHA appendixes A-F outlined by the standard
 - Is the contractor relying upon the use of the OSHA Standard to construct a protective system for the safety of their associates? _____ Yes _____ No

 - Did the contractor's competent person properly classify the soil in the excavation, using Appendix A? You must categorize the soil and rock deposits in a hierarchy of stable rock, Type A, Type B, or Type C. These must be determined based on:
 - Analysis of the properties
 - Performance characteristics of the deposits

- The environmental conditions of the exposure

What properties has the competent person determined as controlling factors in the soil?
(Circle One) Sand Silt Clay

Can the contractor's competent person describe the performance characteristics that may control the soil they have encountered (must be able to describe the effects of: Drying, Saturation, Vibration, Surcharge Loads, Other? _____ Yes _____ No

What environmental conditions of exposure currently affect the condition of the soil:
Drying, Wetting, Vibrations, Surcharge Loads, Other

- Did the contractor's competent person choose the proper sloping or benching configuration from Appendix B or the proper shoring from Appendix C or D? _____ Yes _____ No
If no, please explain:

3. **Water Condition**

- Is dewatering equipment being used on the site? _____ Yes _____ No

- If yes, is the contractor's competent person monitoring the equipment and its proper operation? _____ Yes _____ No

- Has the excavation been subjected to water accumulation? _____ Yes _____ No

- Has the soil in the trench been adversely affected? _____ Yes _____ No

- If yes, has the contractor's competent person inspected the excavation and complied with precautions of (h)(1) and (h)(2)? _____ Yes _____ No

4. **Ramps**

- Is the contractor using a ramp for access or egress to the excavation? If no, skip to the next section. _____ Yes _____ No

- Is ramp used solely for associate access? _____ Yes _____ No

- If yes, was it designed by competent person for safe access and egress? _____ Yes _____ No

- Is ramp used for access and egress of equipment? _____ Yes _____ No

- Is the competent person who designed the ramp qualified in structural design? _____ Yes _____ No

- Does the ramp meet design specifications? _____ Yes _____ No

- If no, have photos and documentation been acquired? _____ Yes _____ No

5. **Confined Space**

- Does the trench or excavation meet definition of confined space? _____ Yes _____ No
 - Limited Access and Egress
 - Ventilation which could produce or contain hazardous air contaminants
 - Not designed for continuous human occupancy
 - Excavation deeper than four (4) feet

- Has a qualified person been assigned to assess the hazards of the confined space? _____ Yes _____ No
 - Qualified Person: A person designated by the employer in writing, as capable (by education and/or specialized training) of anticipating, recognizing, and evaluating associate exposure to hazardous substances or other unsafe conditions in a confined space. This person shall be capable of specifying necessary control and/or protective action to ensure worker safety?
 - Detail Training:

- Is the competent person (qualified person) capable of specifying necessary control measures to assure worker safety? _____ Yes _____ No
 - Detail Measures Taken:

Safety Management Group Competent Person

Name: _____

Signature: _____

