HCS CONCRETE

Corporate Safety Program

Safety Director: Glenn Wiedmeier (208) 895-9000

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HCS CORPORATION

SAFETY AND LOSS PREVENTION PROGRAM

POLICY STATEMENT

It is the policy of HCS Corporation to provide and maintain a safe and healthy work environment for all its personnel.

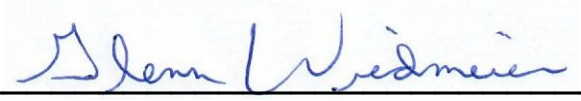
To achieve this goal, every reasonable effort shall be made to utilize the principles of accident and loss prevention in the management of all activities and programs.

Specifically, it is our management's responsibility to identify, control and/or eliminate known hazards which can result in personal injury or illness, property damage, fire, breach of security, negative environmental impact, or any other form of controllable loss.

All personnel are ultimately responsible for their own safety by complying with legislative, company and industry standards, as well as by promptly reporting all unsafe acts or conditions to supervisors. Supervisors are responsible for taking immediate action to solve such problems.

The success of our safety and loss prevention program requires the dedication, commitment, involvement, and participation of all personnel working together to achieve this common goal.

Signature of Glenn Wiedmeier (Owner):



HCS CORPORATION

SAFETY PHILOSOPHY

DEMONSTRATING LEADERSHIP

HCS Corporation is committed to providing a safe and healthy work environment for all personnel.

OUR GOAL IS ZERO ACCIDENTS

Safety is an integral part of the HCS Corporation operation. Our company is committed to the goal of **zero accidents** on all projects. No work is so important that it cannot be done safely.

RESPONSIBILITY AND AWARENESS

To ensure that our goal of **zero accidents** is achieved, the following assignments of responsibility have been established:

Management

1. Establish rules and programs designed to promote safety and make known to all employees the established rules and programs.

2. Provide to all project superintendents the necessary resources enabling them to comply with applicable Safety and Health Standards as well as company policy.

3. Provide appropriate personal protective equipment for employees where required.

4. Be responsible for employee and supervisor training on specific safety and health issues, as well as safe job procedures.

5. Impress upon all the responsibility and accountability of everyone to maintain a safe workplace.

6. Establish and implement procedures for investigating occupational accidents, injuries, illnesses, and “near miss” incidents.

7. Establish, implement, review, and confirm that proper methods and procedures have been taken for correcting unsafe and unhealthy conditions and work practices.

8. Discipline any employee disregarding safety policies and procedures.

9. Require all subcontractors as a matter of contract, and all material suppliers through purchase order terms, to follow safety rules.

10. Conduct scheduled and unscheduled safety inspections of all company job sites, maintain records, and continually monitor the program’s effectiveness.

11. Take action to correct unsatisfactory safety performance.

Project Supervisor

1. Plan production so that all work will be done in compliance with established safety and health regulations.

2. Be completely responsible for continually monitoring (through daily personal observations and weekly hazard assessments) the jobsite for hazards or unsafe working conditions and ensuring that all safety deficiencies are corrected.

3. Make sure proper safety materials and protective devices are available and used and all equipment is in safe working order.

4. Instruct foreman/crew leaders of all project safety and health requirements.

5. Direct foremen/crew leaders to take prompt corrective action to stop unsafe acts and eliminate unsafe or unhealthy conditions.

6. Ensure that all new employees are orientated on the hazards associated with their job, company safety and health policies, and provide employees with proper job instruction on how to perform their tasks safely by following specific job procedures.

7. Conduct initial and weekly job-site hazard assessments, as well as employee job safety observations.

8. Conduct job-site safety meetings.

9. Investigate accidents and reviewing reports for accuracy. Take corrective action to prevent recurrence.

10. Require conformance to safety standards from subcontractors.

11. Document and notify company office of all safety violations and what corrective measures have been taken; discipline employees who do not comply with safety rules, procedures, and policies.

12. Verify that all on-site company vehicles and equipment are maintained within safe operating conditions and specify that all equipment is inspected daily before use.

13. Know the emergency procedures and advise employees about them.

14. Provide protection to the public with regards to company operations.

15. Attempt to ensure safe performance by others present on the job site, including owner and architect/engineer representatives, the public, visitors, and the employees of other contractors.

Job Foremen/Crew Leaders

1. Carry out safety policies and procedures at the work level.

2. Be aware of all safety and health requirements and safe work practices.

3. Plan all work activities to comply with safe working practices.

4. Assist project superintendents in new employee orientation involving safe job procedures, jobsite hazard assessments, and employee job safety observations.

5. Install and maintain devices to protect the public from company operations.

6. Make sure proper personal protective equipment is available and used by all employees; ensure that tools, equipment, and protective devices are properly maintained and utilized.

7. Make sure work is performed in a safe manner and no unsafe conditions or equipment are present.

8. Develop and maintain good housekeeping standards.

9. Conduct a preliminary investigation upon report of incident/accident.

10. Correct all hazards, including unsafe acts and conditions which are within the scope of your position.

11. Secure prompt medical attention for any injured employees.

12. Report all injuries and safety violations to project superintendent.

13. Set a good example.

Workers/Employees

1. Each employee shall be held responsible for performing his/her work in a safe manner.

2. Employees shall comply with all requirements outlined in the HCS Corporation Safety and Health Program.

3. All accidents/incidents, personal or otherwise, no matter how minor, shall be reported immediately to the employee's immediate supervisor.

4. All employees shall be always ready without fear of reprisal, to correct unsafe conditions or to report hazards at the jobsite to their supervisors or management directly.

5. All employees shall cooperate with or participate in, accident/incident investigations.

6. All employees shall comply with all safe work procedures.

7. All employees shall participate in safety orientations, weekly safety meetings and other safety-related gatherings.

8. All employees shall maintain good housekeeping in the work area.

9. All employees shall refuse to work if personal safety is compromised.

10. All employees shall wear adequate and proper personal protective equipment.

11. All employees shall set a good example.

HCS CORPORATION

EMPLOYEE DISCIPLINARY PROCEDURES

Progressive Disciplinary Program Safety Policy

Any employee who, in the judgment of management, knowingly commits an unsafe act or creates an unsafe condition, disregards this safety policy, or is a repeated safety or health offender, will be subject to disciplinary actions up to and including discharge *(see Employee Notice of Safety Violation in the Appendices)*. For non-serious violations, the following procedures will be carried out:

- 1st violation will result in oral warning with documentation.
- 2nd repeat violation will result in written warning.
- 3rd repeat violation will result in termination.

NOTE: A non-serious violation is one which the result of the same does not or would not have caused potential harm or damage to the affect employee, co-workers, company products or facility.

Grounds for Immediate Termination

- Any incident, whether an injury was sustained, that occurs as a direct result of negligence or poor decision making by the employee that could have, would have, or did lead to serious harm or damage to the affected employee, co-worker(s), or company products and/or facility.
- Any company safety policy violation that is not adhered to that could lead to serious harm or damage to the employee, co-worker(s), company products and/or facility.
- Any employee who purposely and/or knowingly disregards safety instructions from a supervisor.
- Failure to wear required personal protective equipment (PPE) for a specified job task when the employee has been instructed through training to do so.
- Failure to rectify or notify supervisor of hazardous situations.

- Failure to replace handrails, barriers, covers, or protective devices including safety signs.
- Engaging in dangerous horseplay.
- Possession or being under the influence of illegal drugs or alcohol on the job-site location.
- Possessing firearms and/or other weapons on the jobsite.
- Fighting.
- Theft or damage to property.
- Insubordination.
- Failure to use sanitary facilities provided.
- Vandalism.
- Gambling.
- Use of personal radios or earbuds.
- Tampering with fire equipment and/or safety devices on tools and/or equipment.

HCS CORPORATION

GENERAL SAFETY RULES

Attitude

All HCS Corporation employees are required to treat safety as a **#1 priority**. As such, they are expected to report to work in good mental and physical condition to safely perform their assigned duties. Before performing any tasks, employees must consider the possible effects of their actions on themselves and others and take appropriate protective measures.

General Job Safety Rules and Regulations

General:

1. All employees shall report all injuries, no matter how slight, to your supervisor at once. No excuse will be accepted for failure to comply with this order.

2. No person shall report to work while under the influence of alcoholic substances or illegal narcotic substances. Anyone involved in these activities will be immediately terminated.

3. Report hazardous conditions (unsafe floors, materials, etc.) promptly to project superintendent or job foreman/crew leader so that corrective actions can be taken.

4. Observe all Hazard Warning and No Smoking signs.

5. Keep aisles, walkways and working areas clear of slipping and tripping hazards.

6. Know the location of fire/safety exits and evacuation procedures.

7. Keep all emergency equipment such as fire extinguishers clear of obstacles.

8. Refrain from horseplay, fighting, or distracting fellow workers.

9. Operate only equipment and power tools for which you are authorized and properly trained for and observe safe operating procedures.

10. Always follow proper lifting procedures.

11. Be alert to see that all guards and other protective devices are in place and functioning properly **before** operating equipment. **DO NOT** remove guards or alter equipment in any way.

12. Frayed, torn or loose clothing, jewelry or long unrestrained hair is prohibited near moving machinery or other sources of entanglement (hand tools) or around electrical equipment.

13. Work at a speed consistent with safety.

Housekeeping:

1. Good housekeeping must be always maintained.

2. Ensure proper disposal of all personal items (lunch boxes, bottles, etc.).

3. Always store materials in a safe manner. Always tie down or support piled material to prevent falling, rolling, or shifting.

4. Remove, cut off, or hammer down protruding nails, staples, etc. on all scrap wood.

Fire Prevention:

1. Store oxygen, acetylene, and LP gas cylinders in racks away from other sources of heat or ignition. Store upright with caps in place.

2. Clean up fuel and oil spillage immediately. Dispose of oily rags and other combustible waste in non-combustible containers.

3. Store flammable liquids in cool, well-ventilated areas away from corrosives, oxidizers, and ignition sources.

4. Flammable liquids shall be used only in small amounts at the job location and in approved safety cans.

5. Do not use gasoline to clean parts or to start fires.

6. Smoking shall be prohibited at or in the vicinity of operations which constitute a fire hazard.

7. Ground and bond flammable liquid containers to prevent static charge build-up.

8. Fire extinguishers shall be located strategically throughout the jobsite, prominently marked for any detection, and comply with local regulatory codes. Become familiar with these locations and fire extinguisher use.

Personal Work Rules:

1. Horseplay, fighting, gambling, possessions of firearms and possession or use of an alcoholic beverage or drugs, except those as prescribed by a qualified physician, are strictly forbidden.

2. Running is strictly prohibited, except in extreme emergencies.

3. Wear clothing suitable for the weather and your work. Torn, loose clothing, cuffs, sleeves, etc. are hazardous and could cause accidents.

4. Jewelry (rings, bracelets, neck chains, etc.) should not be worn.

5. Hard hats must be work in all required areas.

6. Proper eye protection must be worn to protect eyes from flying objects/particles, dust, harmful rays, chemicals, etc.

7. Proper footwear must be worn. Sturdy work boots are required. The wearing of sport shoes, sandals, dress shoes and similar footwear is

strictly prohibited.

Compressed Gas Cylinders:

1. 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.

2. Compressed gas cylinders will be always secured in an upright position. Keep cylinder at a safe distance or shield from cutting or welding operations. Place where they cannot become part of an electrical current.

3. Oxygen and acetylene must not be stored together.

4. Oxygen and fuel regulators must be in proper working order while in use. Hoses must be inspected for damage or defects prior to use.

5. Where cylinders are stored in the open should be protected from accumulation of ice and snow and continuous direct rays from the sun and locations where high temperatures prevail.

6. When stored inside, cylinders must be in a well-ventilated area away from ignition sources and combustible materials.

HCS CORPORATION

HAZARD ASSESSMENT

A Job Hazard Analysis is a means of identifying unsafe conditions that exist on a jobsite. Many different regulations require a Job Hazard Analysis to be done. Some regulations call it a Hazard Analysis; some call it a Hazard Assessment. This is a written plan containing detailed hazard information that may be part of several regulatory compliance programs. HCS Corporation project supervisors will be responsible for performing Job Hazard Analysis's during the initial phase of a project as needed. This assessment is the best way to review hazards in the workplace and protect employees from those hazards. Information resulting from the Job Hazard Analysis will be utilized to correct problems or potential problems to ensure a safe working environment for HCS Corporation employees, as well as other jobsite subcontractors and/or employees.

Job foreman/crew leaders, through training, study, and vigilance, will assist project superintendents in evaluating various areas of the jobsite for unsafe conditions, and take it upon themselves to make it a part of their daily routine to recognize potential hazards and effectively recommend corrective measures.

Refer to Job Hazard Analysis in the Appendix

HCS CORPORATION

EMPLOYEE JOB SAFETY OBSERVATION

Employee job safety observation is a process by which employees are periodically observed to determine their level of safety awareness and attitude with respect to following company safety rules and policies in addition to safe job procedures. It is a valuable tool in accessing employee job performance and the effectiveness of orientation and job-specific training. Job safety observations will be performed by the job foreman or site supervisor when an employee initially begins work with HCS Corporation and periodically throughout the duration of their employment.

HCS CORPORATION

ACCIDENT/INCIDENT INVESTIGATION POLICY & PROCEDURES

The objective of accident/incident reporting is to try and determine the cause(s) through examination, observation, and inquiry and to implement suitable measures to prevent recurrence *(refer to Accident/Incident Investigation Form)*.

It is also important to investigate "near misses" because they are warnings that aid in identifying problems and patterns that can lead to more serious accidents. By following through on the causes on "near misses" we can make changes or corrections that will prevent injuries, illnesses, or damage to equipment. The removal of just a single cause can prevent reoccurrence. Complete investigation of all incidents is one of our best safety tools of preventing future injuries.

Reporting Procedure

A. Employee Responsibility

When any accident, "near miss" injury, or job-related illness occurs, it must be **promptly** reported to job foreman and/or project superintendent for evaluation and investigation. Employees must cooperate with all investigations of any accident in which they were involved, which was witnessed, or where their knowledge of the situation or procedure could be helpful.

B. Employer Responsibility

All accident/injury investigations should be conducted immediately by the project superintendent before the accident scene has been changed or altered and while the experience is still clear in the minds of witnesses. The information must be documented along with the appropriate corrective measures.

OSHA requires employers to record all occupational injuries and illnesses on the OSHA 300 log. The types of accidents and illnesses that must be recorded include fatalities, lost workday cases, restricted duty cases, injuries requiring medical treatment only, and some first aid type injuries.

By law, a fatality or catastrophe must be reported to OSHA within 8 hours. A serious injury (hospital admission with medical treatment), amputation (including fingertip), or loss of an eye must be reported within 24 hours.

NOTE: Any equipment involved in an accident resulting in a fatality is not to be moved until an OSHA representative investigates the accident and authorizes its removal. However, if it is necessary to move the equipment to prevent further accidents or to remove the victim, equipment may be moved as required.

The investigator will complete any company-related "Accident Investigation Form" with the purpose of determining the following:

1. Who and what was indirectly involved in the accident.
2. Where and when the accident occurred.
3. What tools, machines/equipment, condition of the building or jobsite may have contributed to the accident.
4. What employee involvement or action(s) contributed to the incident?
5. Suggested steps/procedures to prevent reoccurrence.

The project superintendent will ensure that the following is done:

1. Photograph and detail the accident scene, documenting the extent of the serious injury, death, or property loss.
2. Develop a plan to prevent the same accident from reoccurring.
3. Follow up and document the corrective action(s).

HCS CORPORATION

EMERGENCY ACTION PLAN

The primary objective of the Emergency Response Plan is to minimize injuries and damage, assist injured personnel and to emphasize the importance of fast response in an emergency.

Responsibilities:

Employees

All employees are expected to participate in and follow emergency response procedures and must be trained in safe evacuation procedure. HCS Corporation will review with each employee upon initial hire, the parts of the Emergency Response Plan the employees must know to protect themselves in the event of an emergency. Employees must know location of first aid kits available, location of emergency evacuation plan with phone numbers, equipment and resources on the project, fire extinguishers, and meeting points.

Project Supervisor

During implementation of the Emergency Evacuation Plan, HCS Corporation project supervisors will inform personnel of responsibilities regarding the plan as it pertains to the jobsite. The project supervisors will develop designated meeting points and ensure the safety of all personnel is maintained by means of work stoppage, evacuation, worker head counts, maintenance of site security, etc. During an emergency the project supervisor is responsible for providing suitable resources to handle the situation (extra personnel, specialty personnel or agencies, equipment, etc.), handle media relations and ensure victims' families are notified.

Protection against Hazards:

Employees are to be informed of the plan's purpose, emergency escape procedures and route assignments. The following sequence of events will help employees respond quickly and properly in case of an emergency:

1. Call immediately for medical attention. Explain what kind of injury and where the victim is, to the project superintendent. Emergency numbers are posted for the nearest medical facility, paramedics, and employees with first aid training.

2. Check to see if employee is breathing; do not move employees unless they are in imminent danger; make sure proper first air procedures are carried out.

3. Confirm site access is controlled.

4. Verify assistance is provided to emergency response personnel.

5. Before leaving the area, check rooms or other enclosed spaces for employees who may be trapped or otherwise unable to evacuate the area.

6. Work to resume when emergency resides.

First Aid Procedures:

Each type of emergency has its own first aid procedures. HCS Corporation shall assure that there is a designated trained first aid provider on all jobsites.

Bleeding: Put on latex gloves and stop the flow of blood until help arrives. To do this, push on the wound with a cloth or your hand. For deep cuts, elevate the wound while you apply pressure. For even more serious cuts, add a third action – push on pressure points on the inside of upper arm and crease of the groin. Do not use a tourniquet unless the bleeding will not stop.

Shock: A seriously injured person will frequently go into shock – which can be fatal. While you are waiting for medical help to arrive, lay the person down, cover, and raise the feet above the heart level. Do not provide anything to drink and check regularly for breathing.

Broken bones: Do not move a person who may have broken bones unless it is necessary. The wrong move could be deadly. Keep the person still and wait for professional help.

Eye injuries: Eye injuries should be treated immediately. If something is stuck in the eye, keep the person calm until medical help arrives. If chemicals were splashed in the eye, flush with water for at least 15 minutes. Then close the eyes, cover with a clean cloth, and get medical help.

Electrical shock: Electrical shock can be deadly to the employee. It can also kill you if you make the wrong moves when you try to help. Do not touch the person in contact with a live electric current. Turn off main electric switch or fuse or get an electrician or maintenance person to do it of one can be found quickly. If you *must* move a person from a live wire, stand on something dry and use a dry stick or board to push the person off the wire. Do not use anything metal, wet or damp. After the person has been moved from the electricity, check for heartbeat and breathing. If necessary and you are qualified, administer artificial respiration or CPR.

Burns: The way you treat a burn depends on the kind of degree burn it is.

1. C*hemical burns* – flush burned part of skin with water for 15 minutes; carefully remove contaminated clothing.
2. *First degree burn (least serious – skin is red), Second degree burn (skin is red and there are blisters); Third degree burn (most serious – skin is destroyed, tissues are damaged and there is charring).*
    a. Wrap a person who is on fire in a blanket or coat, make the victim drop and roll.
    b. Cut away loose clothing but do not touch clothing that is stuck to a burn.
    c. <u>DO</u> <u>NOT</u> rub the body.

d. Immerse first and second degree burns in cold water to relieve the pain, and then cover the skin with a moist sterile dressing. Elevate burned limbs.
e. Treat the victim for shock and check for breathing problems.
f. Do not use ice, lotion, or ointment on a burn.

Chemical exposure: If someone has inhaled, swallowed, or been splashed with a hazardous chemical, refer to the chemical's label and SDS to determine proper treatment. There are, however, some general approaches that apply in most instances:

1. *Eyes and skin* – flush with water for 15 minutes.
2. *Inhalation* – Move to fresh air and administer artificial respiration or CPR if you know how.
3. *Swallowing* – Get medical assistance and check SDS or call the poison control center. Do not give an unconscious person fluid.

Fire Prevention: Fire protection will be in accordance with all Federal, State and Local Codes and Regulations. Where portable fire extinguishers are provided, the following minimum guidelines are applicable.

1. Access to firefighting equipment will be always maintained.

2. Firefighting equipment will be conspicuously located and distinctly marked.

3. Firefighting equipment will be inspected monthly.

4. Firefighting equipment will be maintained in good operation condition.

5. One minimum rated 2A extinguisher will be provided for every 3,000 square feet of building and spaced not more than 100 feet apart.

6. One extinguisher will be posted adjacent to each stairway on each floor.

7. Maintain good housekeeping practices to reduce the risk of fire damage and personal injury. Remove all scrap material, rubbish, and trash from the work site daily.

8. When not in use, store flammable and/or combustible material outside in suitable labeled containers. **Inside storage of flammable materials is prohibited**.

9. A fire watch is to be posted when welding/cutting operation present potential fire hazards. This watch is to remain for at least 30 minutes after the welding/cutting operation is completed to assure that no fire begins due to residual effects of the operation.

10. Fuel storage and filling operations are to be conducted with prudence and utilizing common sense and in accordance with NFPA or local regulations.

11. Unless otherwise posted, smoking will not be allowed within buildings or temporary storage sheds.

Project Safety Policies that have been implemented imply that "if you attempt to put out a fire in its first 30 seconds, you stand a good chance of being successful." During the first 30 seconds, emergency assistance should be followed by anyone discovering or involved in a fire.

Area supervisors shall respond to the following as applicable:

1. A fire is to be evacuated regarding controlling it.

2. Necessary evacuation steps are to be taken.

3. The evacuation procedure is to be carried out.

4. Site security measures are to be established as necessary to keep "thrill seekers" and non-essential people out and to safeguard records and equipment.

When directed to evacuate a building under threat of fire, employees should observe the following points:

1. Permanent elevators are not to be used unless directed.

2. Lights to be left on, doors and windows closed but not locked.

3. Employees to stay as low as possible and try to keep out of the smoke (possibly toxic).

4. Should clothes catch on fire, the best thing is to drop and roll.

MODIFIED WORK POLICY

The purpose of the HCS Corporation Modified Work Program is to minimize the results of an injury for both the employee and the company.

"Modified work", means temporarily placing the employee in a working environment that would not cause a further aggravation of an injury or previously existing condition. Modified work is accomplished by working directly with the employee, their supervisor and treating physician. Employees and treating physicians must understand the HCS Corporation modified work program. This is the responsibility of the project supervisor and the HCS Corporation Insurance Coordinator.

The employee must notify his direct supervisor and project supervisor immediately of any injury or condition that would place him or her in jeopardy during normal work assignments. Failure to report any such condition may be grounds for termination of employment and denial of workers' compensation benefits.

If the employee is under a physician's care, the employee must report this to his or her direct supervisor and the project supervisor immediately. A copy of the treating physician's report listing specific work restrictions must be presented to the project supervisor. The supervisor will then work with the employee to place the employee in a temporary modified work position that will not violate any restrictions listed by the treating physician.

Employees placed in a modified work assignment must inform their supervisor of any required physician visits that may occur during normal working hours. Otherwise, the employee will be required to be

on the project during normal working hours. Efforts will be made to keep the employee working on the project where the injury may have occurred. However, this may not be feasible in all cases. The employee may be required to report to another work location where a more suitable work environment can be developed.

Any employee placed on a modified work assignment will be evaluated on a weekly basis to monitor his or her recovery and ability to return to a regular work assignment. This will be the responsibility of the project supervisor, working in conjunction with the employee, treating physician, supervisor, and the HCS Corporation corporate office.

Subcontractors who have employees injured or placed in a modified work assignment because of an incident that occurred on a HCS Corporation project or has a pre-existing work restriction are required to provide weekly medical updates on the employee's condition to the project supervisor and HCS Corporation corporate office.

HCS CORPORATION

FALL PROTECTION
(Applicable OSHA Standard 1926.500)

On all HCS Corporation jobsites, if you are working in areas with a fall hazard of more than 6 feet to a lower level, fall protection is required. If you are moving materials, or operating equipment within 15 feet of the edge, fall protection is required.

Two fundamentals to fall protection are "Engineered Solutions" and Personal Protective Equipment.

"Engineered Solutions" consist of the following:

Railings:

Unless the context requires otherwise, **railing and toe-board** terms shall have the meanings ascribed in this paragraph.

- The **top rail** must be capable of withstanding a force of 200 pounds in any outward or downward direction. At any point of the top edges, and 42" (+/- 3") above the walking/working surface.
- The **mid rail** must be a minimum height of 21" and be capable of withstanding a force of 150 pounds in any outward or downward direction.
- The **toe board** must be a minimum height of 4" nominal board width, less than ¼" off the surface, capable of withstanding a force of 50 pounds in any outward or downward direction, with openings not greater than 1". A common 2x4 is generally acceptable by OSHA if it is high enough to abate the hazard.

Barricades and Warning Lines:

Barricades and warning lines can be used (where applicable) as an alternative railing system under the following conditions:

WARNING LINES: In areas of construction where work is not taking place within 15 feet of the edge or drop off, a warning line can be used to warn employees not to proceed past that warning line.

- A Warning line System can consist of a rope or cable no less than 34" and no more than 39" from the walking/working surface.
- The Stanchion Supports for the rope or cable must be capable of resisting a horizontal force of 16 pounds.
- The rope or cable must have a tensile strength of 500 pounds.
- The rope or cable must also be flagged at 6' intervals, OSHA 1926.500 (7) (b), with a high visibility material.
- Any workers whose work requires them to be between the warning line system and the edge must be wearing the appropriate personal Fall Protection System (fall protection harness, fixed length lanyard, etc.).

ATTENDANT: An attendant may be placed to warn anyone not to approach an edge or opening until a handrail or other Fall Protection can be developed. The Attendant must be:

- A competent person.
- Is trained to recognize the hazards of the job.
- Has been given the authority to shut down the job if necessary.

Protection from Falling Objects:

It is every employee's responsibility to protect other employees from falling objects that result from the work they are performing. Some methods of preventing work accidents to other employees are:

- Making sure that any hole in the floor surface greater that 1", but smaller than 12" is covered with a material that will withstand 3X (three times) the maximum weight that will be placed on it, and secured to the floor, and clearly labeled with the work "hole" or "cover."
- Any floor opening greater than 12" in the smallest dimension needs either a cover or an approved guardrail system.
- Any wall opening that has a bottom less than 39" above the walking/working surface, and is at least 30" high, and 18" wide, must have a guardrail system.

- Any wall opening less than 4" above the floor must have a 4" toe-board installed to prevent material from falling through the floor.
- Protecting others from hazards caused by your work may involve barricading off a controlled access zone to restrict your area to others and posting it as a "Mandatory Hard Hat Area."

Fall Arrest:

The components of a fall arrest system consist of:

- Full Body Harness – most Full Body Harnesses are approved for 310 - 420 pounds. If you and your tool belt exceed the weight rating, you cannot wear personal fall protection equipment. You cannot wear personal fall protection equipment if you have a back injury or are being treated for a back injury.
- Shock Absorbing Lanyard – In a Fall Arrest application, this lanyard can be attached to the back D-ring of the harness only. Depending on the circumstances a double lanyard may be required to provide 100% fall protection.
- Connector (or Carabineer) - One end of the shock absorbing lanyard is connected to the back D-ring of the harness, and the other end is connected to the Connector, (or Carabineer). The Connector or Carabineer is then connected to the "Anchorage Point."
- Anchorage Point – May be an engineered type or a structural member that will withstand a 5000-pound force.

In a fall arrest system, the Anchoring Point must be capable of withstanding a 5000-pound force and be high enough the D-ring (using a lanyard of proper length) to ensure that the employee does not free fall more than 6 feet, nor contact any lower level.

Additional fall arrest equipment would include:

- Vertical lifelines – only one person at a time may be attached using a 5000-pound capacity.
- Horizontal lifelines – must be strong enough to withstand 5000-pound between supporting stanchions.

- Cable Connectors – minimum 3/8" cable, formed eyes at both ends, 3 cable clamps per end, and capable of supporting 5000 pounds (in a full restraint system, capable of supporting 500 pounds).

Fall Restraint Systems:

A Fall Restraint System may be used on horizontal surfaces and consists of:

- Full Body Harness – most manufactured full body harnesses are approved for 310 - 420 pounds.
- Fixed Length Lanyard – attached to the front or back D-ring of the harness and must be of the proper length to prevent an employee from falling over the edge.
- Connector – (if needed)
- Anchorage Point – in a fall restraint system, the anchorage point must be capable of supporting 3000 pounds.

All Anchorage Points need to be thoroughly inspected to ensure that they will work for their designed purpose. If you have any questions concerning anchorage points, contact the project superintendent.

Cable Connectors (Drop Lines):

Cable connectors may be used as an extension of the anchorage point and must meet the following requirements:

- Cable must be a minimum of 3/8" diameter.
- Able to withstand a 5000-pound force (fall arrest).
- Able to withstand a 3000-pound (fall restraint).
- Two (2) formed eyes.
- Three (3) cable clamps on each end.

For some tasks, the "positioning" fall arrest system may work best and consists of:

- Full body harness.
- Two (2) fixed length lanyards (must connect to side D-rings of harness).
- Two (2) anchorage points capable of withstanding a 5000-pound force

per lanyard.

It is each employee's responsibility to inspect and care for each piece of fall protection equipment prior to each use. Each user will determine that the equipment is not serviceable, tag it "Out of Service," return it to the storage area and notify the project superintendent. Some items to look for in your inspection are:

- Stitching
- D-rings
- Discoloration
- Cuts and tears
- Cleanliness

Portable Ladders:

Portable ladders do not require the use of fall protection system unless you are working in a position that could cause you to fall, or if the task requires you to lean over, or away from the ladder resulting in a potential fall. If fall protection is worn, this does not justify improper use of the ladder.

The OSHA standard provide for an exception where fall protection is not required for making routine inspection. However, if that inspection would create the real probability for a fall, common sense should be employed, and fall protection should be used.

HCS CORPORATION

LADDER SAFETY
(Applicable OSHA Standard 1926.1053)

Causes of Ladder Accidents:

- Climbing or descending improperly.
- Failure to secure the ladder.
- Attempting to carry a load while climbing.
- Modifying or altering equipment (drilling holes, removing stabilizer).
- Trying to move ladder while still on it.

Ladder Rules and Prevention:

- Use two hands when climbing.
- Face the ladder when climbing 1926.1053(b)(20).
- Belt Buckle Rule – does not pass the side rails; do not stand on top two rungs.
- Choose the right ladder, length, strength, type base.
- Never modify a ladder, drill no holes.
- Ladders shall be used only for the sole purpose for which they were designed 1926.1053(b)(4).
- Do not exceed the posted maximum load rating for the specific ladder 1926.1053(b)(3).
- An employee shall not carry any object or load that could cause the employee to lose balance and fall 1926.1053(b)(22).
- Ladders placed in any location where they can be displaced by workplace activities or traffic, such as in passageways, doorways, or driveways, shall be secured to prevent accidental displacement, or a barricade shall be used to keep activities or traffic away from the ladder 1926-1053(b)(8).
- Be sure to include a barricade on the opposite side of the door from the ladder as well as secure all extension ladders.

- When portable ladders are used for access to an upper landing surface, the ladder side rails shall extend at least 3 feet above the upper landing surface 1926.1053(b)(1).
- Ladders shall be maintained free of oil, grease, and other slipping 1926.1053(b)(2) hazards.
- Ladders shall not be tied or fastened together.
- Ladders are not to be used as planking or a platform in a horizontal situation.
- Daily use of a fixed ladder requires construction stairways to be built and used in place of fixed ladder – contact your superintendent.
- When working on a ladder above moving machinery or dangerous equipment, pits, or tanks, you are required to either guard or cover the potential hazard or utilized personal fall protection devices.
- Ladders shall not be moved, shifted, or extended while occupied 1926.1053(b)(11).
- Ladders shall have non-conductive side rails where either the employees or ladder could contact energized wires or equipment (12).
- The area around the top and bottom of ladders shall be kept clear (9).
- Cross-bracing on the rear section of stepladders shall not be used for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections (14).

Chose the Right Ladder:

- Consider work surfaces, location – for type of feet (stability).
- Environmental (electrical hazard?).
- Considerations – type (step, single or straight, extension); length (extension or straight ladder, 3’ past landing edge); strength – OEM Max. (weight posted on ladder).
- Ladders shall be used only on stable and level surfaces unless secured to prevent accidental displacement.
- Ladders shall not be used on slippery surfaces unless secured or provided with slip-resistant feet to prevent accidental displacement 1926-1053(b)(7).
- Smooth painted concrete, steel grating, and steel plate should be considered on a slippery surface.

Ladder Inspection:

Inspect all ladders prior to use. If you find a problem with the ladder, immediately tag it "Out of Service." Problems include:

- Missing bolts or rivets.
- Missing, bent or loose rungs.
- Missing or damaged rubber feet.
- Bent or missing spreader bars or braces.
- Bent or split side rails.

For ladder placement using straight or extension ladders, the measured distance out from the wall for placement of the foot of the ladder should be ¼ the length of the ladder from the foot to the top supporting surface of the wall.

Fall protection for portable ladders is required only if the task you are performing causes you to:

- Lean out over the edge of the ladder (belt buckle rule) causing a potential fall.
- If there is dangerous moving machinery, equipment, pits, or tanks beneath the ladder.
- If you feel more comfortable using fall protection, **you should use it.**
- ***Even if you are in fall protection, you must still practice Ladder Safety.***

HCS CORPORATION

PERSONAL PROTECTIVE EQUIPMENT (PPE) PLAN
(Applicable OSHA Standard 1926.28)
(Sub Part E)

Purpose:

The Personal Protective Equipment Plan provides direction to managers, supervisors, and employees about their responsibilities in the selection, use, care, and disposal of personal protective equipment.

Objective:

Personal protective equipment and devices should only be used when it is impossible or impractical to eliminate a hazard or control it at its source through engineering design. Wearing personal protective equipment does not eliminate the hazardous condition. Every effort will be made to first eliminate the hazardous condition through engineering and/or administrative control strategies. If it is not possible or feasible to eliminate hazardous conditions, personal protective equipment will be used to establish a barrier between the exposed employee and the hazard to reduce the probability and severity on an injury.

Responsibilities:

Project superintendents are responsible for conducting worksite task analysis to identify hazardous conditions to assess the need for personal protective equipment. Sources of hazards include:

1. Hazards from impact/motion, high/low temperatures, chemicals, materials, radiation, fall objects, sharp objects, rolling or pinching objects, electrical hazards, and workplace layout.

Select appropriate personal protective equipment. If a task exposes an employee to hazards which cannot be eliminated through engineering or administrative controls, the superintendent will identify and select personal protective equipment suitable for the specific task performed, conditions

present, and frequency and duration of exposure.

Train employees before they are assigned to a hazardous task. Training should include:

1. When PPE is necessary.

2. What PPE is.

3. How to properly don, doff, adjust, and wear PPE.

4. The limitations of the PPE.

5. Proper care, maintenance, useful life, and disposal of the PPE.

After the employee demonstrates correct use, care and disposal procedures of the PPE, the superintendent and employee will certify completion of training.

Supervise employees on safe use and care of PPE. Supervisors will regularly monitor employees for correct use and care of PPE and provide follow-up training, if required, to ensure each employee has adequate skill, knowledge, and ability to use PPE.

Enforce PPE safety rules. Supervisors will enforce PPE safety rules following HCS Corporation disciplinary actions.

Employees are accountable to comply with PPE safety rules including:

- Correct use and care of PPE.
- Reporting changes in exposure to hazardous conditions that might require a follow-up analysis of the task for PPE.
- Reporting and replacing defective PPE.

Selection Guidelines:

1. *Eye and Face Protection* – Employees must use appropriate eye or face protection when exposed to eye or face hazards from flying practices, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. Eye and Face PPE must comply with ANSI Z87.1-1989 or be demonstrated to be equally effective.

2. *Head Protection* – Employees must wear protective helmets when working in areas where there is potential for injury to the head from employee-initiated impact or impact from falling or other moving objects. Protective helmets designed to reduce electrical shock hazards will be worn by each employee when near exposed electrical conductors which could contact the head. Helmets will comply with ANSI Z89.1-1986 or be equally effective.

3. *Foot Protection* – Employees must wear protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or from object piercing the sole, and where employees' feet are exposed to electrical hazards. PPE or foot protection must comply with ANSI Z41.1-1967 or be equally effective.

4. *Hand Protection* – Employees must use hand protection when their hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; and thermal burns and harmful temperature extremes. Supervisors must base selection of hand protection on evaluation of the performance characteristics of the hand protection relative to the specific tasks to be performed, conditions present, duration, duration of use and the hazards and potential hazards identified.
5. *Respiratory Protection* – Employees will use appropriate respiratory protection when adequate ventilation or substitution with non-toxic chemicals, etc. is not possible or feasible. Respirator protection must comply with ANSI Z288.2-1969 or be equally effective.

6. *Fall Protection* – Fall protection must be provided when employees are exposed to a vertical fall of six feet or more over a lower level or dangerous equipment. Fall protection will consist of either passive or active fall protection. Fall protection must comply with ANSI A10.14-1991 or be equally effective.

Monitoring:

Supervisors will monitor worksite tasks for changes in, or the introduction of new hazards. If new hazards are discovered, they will conduct a task analysis for appropriate PPE. A worksite analysis will be conducted periodically for each task that requires employees to use PPE.

HCS Corporation Mandatory Requirements:

It is a requirement on each HCS Corporation project to have all employees wear:

- Hard hats ***when overhead hazards exist.***
- Safety eye wear appropriate to hazard exposure ***when eye hazards exist***.
- Appropriate safety footwear (sturdy work boots).
- Hearing protection (in areas of noise levels above 85 dB).
- High visibility shirts or vests when working around heavy equipment and high visibility Class II vests (with reflectivity) when working adjacent to roadways.

Personal Protective Equipment need not be worn in office, lunchrooms, and washrooms/change rooms.

HCS CORPORATION

ELECTRICAL SAFETY
(Applicable OSHA Standard 1926 Subpart K)

Preventing and Eliminating Hazards

All electrical work done at HCS Corporation jobsites must be performed by a qualified (registered with the State of Idaho as an apprentice or journeyman electrician) electrician. The potential for electrical hazards exists in all work environments. There are two basic categories to be aware of when considering electrical hazards. The more obvious of those two is Biological Hazards.

Biological Hazards:

The most common Biological Hazards occur when your body becomes part of the electrical circuit. The following are examples of biological hazards to be aware of:

- Exposed wires – treat all wires as "live" until tested and locked-out by a qualified electrician.
- Frayed power/extension cords – inspect each cord prior to each usage to ensure that the cord insulation has not been compromised. Remove all frayed cords from service.
- Water around/near tools or machines – Always use a GFCI protected system and grounded hand tools.
- Uncovered switches or receptacles – Always assume that they are "live."
- Missing ground prongs on power cords.
- Ignoring barricades or warning signs or panels on equipment.
- Failure to de-energize or lock-out equipment – Use extreme care in areas where electricians are working on "live" or exposed systems.
- Accidental start-up of equipment due to improper "Lock-out, Tag-out" procedure – "Lock-out, Tag-out" controls must be in effect when working on or around equipment.

Environmental Hazards:

Environmental hazards are another category and includes “FIRE” resulting from:

- Arcing and overheating of electrical systems or individual components of that system.
- Improper sizing of electrical cords and wiring for the load it is to carry.
- Sparks that could ignite flammable vapors.

General:

Cord control is an essential part of electrical safety. Additional mandates are:

- Do not put electrical cords where they may be damaged or abused.
- Do not put cords where equipment can run over them or under doors that will cut them when they close.
- Flat cords not permitted in construction.
- Periodic inspection required.
- Walkways must be kept clear of cords.
- Do not let electrical cords hold doors open. Block or wedge the door in such manner as to prevent damage to the cord.
- Extension cords and electrical tools shall have GFCI in conductive, wet, or potentially wet areas.
- Extension cords and cable may not be used where run through holes, doorways, or windows.

Safe Clearance:

Many fatal overhead accidents occur when people, or the material they are handling, encounter overhead power lines. The following distances must be always maintained:

Minimum Safe Approach Distance (MSAD)
To energized (exposed or insulated) power lines.

Voltage Range	Distance
600V to 50kV	10 feet
50kV to 200kV	15 feet
200kV to 350kV	20 feet
350kV to 500kV	25 feet
500 kV to 750kV	35 feet
750 kV to 1000kV	45 feet

Many accidents occur when people try to rescue shock victims. **DO NOT ATTEMPT TO RESCUE SHOCK VICTIM**.

If you encounter any electrical hazards that need corrected, contact job-site superintendent.

OSHA's ground-fault protection rules and regulations (1926.404) have been determined necessary and appropriate for employee safety and health. Therefore it is our policy to provide either (1) ground fault circuit interrupters on all construction sites for receptacle outlets in use and not part of the permanent wiring of the building or structure; or (2) a scheduled and recorded assured equipment grounding conductor program covering all cord sets, receptacles that are not part of the permanent wiring of the building or structure, and equipment connected by cord and plug that are for use or used by employees.

Ground-Fault Circuit Interrupters

Ground- fault circuit interrupters will be required for all 120-volt, single phase, 15-and 20-ampere receptacle outlets on construction sites that are not part of the permanent wiring of the building or structure. Receptacles on the ends of extension cords are not part of the permanent wiring and, therefore, must be protected by GFCI's whether the extension cord is plugged into permanent wiring.

ENERGY ISOLATION
(Applicable OSHA standard 1926.417)

OSHA requires you to lockout/tagout when:

- You do service or maintenance on machines or equipment when **UNEXPECTED** start-up or release of energy could cause injury. This includes work done during construction, remodel, or demolition.
- Lockout/tagout applies to normal production operations when you remove or by-pass a guard or if any part of your body is put in jeopardy.

When doing maintenance, construction, or demolition tasks, you must lockout/tagout all sources of energy on the equipment you are servicing. In situations where multiple components of equipment join to form one larger piece of equipment, all sources of energy specific to the specific component you are servicing need to be individually locked out. This can only be done when the individual working on the single component can do so without danger from the other components.

The intent of Energy Isolation is to protect employees from dangerous sources of energy. Some (but not all) of the sources that need to be considered are:

- Electrical – potential for shock.
- Mechanical – pinching, crushing, cutting, or rolling action due to accidental equipment startup.
- Hydraulic – pinching, crushing, cutting, or rolling action due to accidental equipment startup.
- Pneumatic - pinching, crushing, cutting, or rolling action due to accidental equipment startup.
- Thermal – potential for burns (steam).
- Chemical – health hazards, burns from exposure to chemicals.
- Compressed gasses – health and physical hazards.

When applying Lockout/Tagout devices, use both locks and tags whenever possible.

- A tag may be used by itself when it is physically impossible to use a lock and tag.
- A tag by itself is only a warning device and may give a false sense of security.
- The lock and tag must be placed on the energy isolation device itself such as a circuit breaker, disconnect switch, or valve.
- If the source of energy is a plug/outlet, you must have control of the plug end; if you cannot control the plug end, you must lock/tag it with an appropriate plug lock device.
- Never lock anything in the "on" position.

All energy isolation tags will be provided by HCS Corporation and are available at each job-site location.

- Tags must be attached with tie-wraps and placed right on the lock or energy isolation device.
- Be very specific with the information placed on the tag.
- Write legibly and fill out the tag out completely.
- Do not remove or ignore someone else's tag.

Participants in the energy isolation procedure are defined as:

- AUTHORIZED – a person who locks out or tags out machines or equipment to perform servicing or maintenance or that machine or equipment to include construction and demolition.
- AFFECTED – An employee whose job requires him/her to operate or use a machine or equipment on which servicing, or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which servicing, or maintenance is being performed.
- OTHERS – Anyone who *may* work in an area that *might* be locked out.
- GROUP LOCKOUT COORDINATOR – Individual designated during group lockout to be the first person to place the lock and the last person to remove the lack after verifying everyone else is complete.

The six steps in energy isolation procedures performed by the "authorized" person are:

- Verify the source(s) and magnitude of energy involved and notify all

affected employees.

- Shut down the machine or system and verify the area impacted; be sure to follow shut down procedures for the specific equipment (if procedures are available).
- Isolated the system at the energy source using the appropriate energy device; source would most likely be, an electrical panel, breaker or valve supplying the energy; most equipment is built with a designated isolation device (if you are unsure, contact the equipment owner to verify).
- Apply locks or tags to the isolation device; it must be placed in the "off" or "safe" position; any time you place a lock, a filled-out tag is **required** to be attached to the lock.
- Release of restrain the stored energy in the system and ensure that there is no released until the lockout/tagout is completed.
- Verify the lockout by thoroughly checking the system to ensure that there is no energy present; be aware of the potential for energy to be back fed into the system is an unexpected manner which could cause potential injury or system damage.

To release the system/equipment from lockout/tagout, the "authorized" person must:

- Inspect the system/equipment to ensure all work is completed and safety guards and covers are in place.
- Notify all "affected" personnel to ensure their safety as the equipment is energized.
- The "authorized" person should then remove the lockout/tagout device and energize the system.

Anytime you energize a locked-out piece of equipment, even for brief periods of testing, all the above steps must take place. When testing is completed and equipment is locked out, the six energy isolation procedures must be followed.

Procedures for a group lockout/tagout are:

- If more than one person or trade is involved, a designated "authorized" person is appointed as the "group lockout coordinator;" this competent person must be aware of the exposure to hazards status of everyone on

the group.

- The “group lockout coordinator” will install the lockout device along with his lock and the appropriate tag before anyone else.
- All other tradesmen will install their own lock and tag on the device if they are still working on the system.
- As tradesmen complete their portion of the work, they must remove their locks/tags.
- The group lockout coordinator” is the last to remove his/her lock and the system may be re-energized after a thorough pre-startup inspection is competed along with notifying all “affect” personnel.

HCS CORPORATION

CONCRETE
(Applicable OSHA Standard 1926.700, Subpart Q)

- All reinforcing steel that an employee could fall onto or into (this includes horizontal steel) will have protective caps or an equivalent means of guarding.
- No employee will be allowed to place or tie reinforcing steel more than six feet above a work surface unless proper fall protection is used.
- All reinforcing steel will be braced in a manner to prevent overturning and collapse.
- All manually guided rotating type powered concrete trowel machines will be equipped with a control switch that will automatically shut off when hands are removed from the machine.
- Where bull float handles could encounter energized electrical conductors, the handle will be constructed of non-conductive material.
- A copy of drawings or plans for jack layout, formwork, working decks, and scaffolding will be maintained at the job site.
- Erected shoring will be inspected prior to, during, and immediately after concrete placement.
- All vertical formworks will be braced in a manner to prevent overturning and collapse. The practice of using wire tied to reinforcing steel will not be considered adequate bracing.
- During post-tension operations, only employees who are essential to jacking operations will be permitted behind the jacks.
- Form removal will not be done until the concrete has gained sufficient strength to support its weight and superimposed loads.
- Only employees required for erection of pre-cast members are permitted around erection.
- Additional requirements for concrete construction - refer to **CFR 29 Part 1926 Subpart Q**.

HCS CORPORATION

HAZARD COMMUNICATION PROGRAM
(Applicable OSHA Standard 1926.59)

Policy:

To ensure that information about the dangers of all hazardous chemicals used at HCS Corporation jobsites are known by all affected employees, the following hazardous information program has been established. HCS Corporation staff is committed to the prevention of incidents or happenings which result in injury and/or illness; and to comply with all applicable federal and state safety and health regulations.

All applicable work units of the company will participate in the hazard communication program. The project superintendent will determine if a HazCom program is necessary. This written program will be available for review by any interested employee. This program will be available at each HCS Corporation jobsite. Each employee will be given this information individually for reference and during initial orientation.

Container Labeling:

HCS Corporation project superintendent will verify that all containers received for use will be clearly marked as to the contents, note the appropriate hazard warning, and list the name and address of the manufacturer. It is HCS Corporation policy that no container will be released for use until the above data is verified.

Project superintendent will ensure that all secondary containers are labeled with either an extra copy of the original manufacturer's label or with labels that have the identity and the appropriate hazard warning.

Project superintendent will review the company labeling procedures every 6 months and update as required.

Safety Data Sheets (SDS):

Project superintendent is responsible for establishing and monitoring the company SDS program. They will make sure procedures are developed to obtain the necessary SDS's for new or significant health and safety information. They will see that any new information is passed on to affected employees. New chemicals or chemicals that have changed ingredients should be updated and included in the SDS files.

Copies of the SDS's for all hazardous chemicals in use will be kept on location at each HCS Corporation jobsite. SDS's will be available to all employees during each work shift. If an SDS is not available, immediately contact the project superintendent.

Employee Training and Information:

Project superintendent is responsible for the HCS Corporation employee training program. They will ensure that all program elements specified below are carried out.

Prior to starting work, each new HCS Corporation employee will attend a health and safety orientation that includes the following information and training:

- An overview of the requirements contained in the Hazard Communication Standard.
- Hazardous chemicals present in the workplace.
- Review of the HCS Pictograms Hazard Statements, and Signal Words
- Physical and health risks of the hazardous chemicals.
- The symptoms of overexposure.
- How to determine the presence or release of hazardous chemicals in his/her work area.
- How to reduce or prevent exposures to hazardous chemicals through use of control procedures, work practices and personal protective equipment.
- Steps the company has taken to reduce or prevent exposure to hazardous chemicals.
- Procedures to follow if employees are overexposed to hazardous

chemicals.
- How to read labels and review SDS's to obtain hazard information.
- Location of SDS file and written hazard communication program.

The orientation covered by project superintendent will be signed and dated by HCS Corporation employee. This shall ensure that each employee has been properly trained in HazCom. The signed orientation will be kept on file for documentation of that training. Before introducing a new chemical hazard into any section of this company, each employee in that section will be given information and training as outlined above for the new chemical hazard.

Hazardous Non-Routine Tasks:

Periodically, employees are required to perform hazardous non-routine tasks. Some examples of non-routine tasks are *confined space entry, tank cleaning and painting*. Before starting work on such projects, each affected employee will be given information by project superintendent about the hazardous chemicals they may encounter during such activity. This information will include specific chemical hazards, protective and safety measures the employee can use, and steps the company is using to reduce the hazards including *ventilation, respirators, presence of another employee and emergency procedures*.

Project superintendent will also inform the employees of any precautionary measures that need to be taken to protect employees during normal operating conditions or in foreseeable emergencies and provide them with an explanation of the labeling system that is used at the work site.

List of Hazardous Chemicals:

The following is a list of all known hazardous chemicals used by HCS Corporation employees. This list should be completed as to give quick reference to first aid and emergency procedures, in the event a chemical enters the body. Further information on each chemical may be obtained by reviewing SDS's located at each HCS Corporation jobsite.

	Chemical	Eye	Skin	Inhaled	Swallowed
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Preliminary First Aid:

The following information is being provided to the HCS Corporation employees to give them important preliminary first aid methods to consider if they are exposed to hazardous materials.

Chemicals in the eyes

1. Don't rub the eye(s).

2. Hold the eyelid(s) open and flush eyes with clean water. Continue for 15 to 20 min.

3. Be careful not to contaminate the other eye.

Chemicals on the skin:

1. Flush burned area thoroughly with lukewarm water for at least 15 min. Be sure to wash the chemical away completely.

2. Remove clothing and jewelry from burn area. If clothing is sticking to the burn, do not try to remove it.

3. Seek further medical attention.

Inhalation of Chemicals:

1 After you have identified the chemical, move the victim to fresh air immediately.

2 Get help.

Ingestion of Chemicals:

1 Induce vomiting only if instructed by the Poison Control Center or SDS. When a chemical has been swallowed, making the victim vomit may or may not be the right thing to do.

2 Get immediate medical attention.

IMPORTANT NOTE: For specific first-aid procedures for a particular hazardous material, read the emergency instructions on the SDS.

When you follow the proper precautions, you can work safely and effectively with hazardous materials. The following is a safety checklist that should be used every time you do a job that involves handling hazardous materials:

HAZARDOUS MATERIALS CHECKLIST

1. Use the safety equipment required by your employer.

2. Check your clothing and be aware for signs of wear.

3. Remove your contact lenses if vapors might be present.

4. Pay attention to all warning labels and signs.

5. Read the label on every container before you handle it.

6. Check with your supervisor before handling any container which you are not familiar.

7. If you are unfamiliar with a hazardous material, be sure to read the SDS.

8. Take all precautions recommended on the label or in the SDS.

9. Ask you supervisor for more information if there is anything you don't understand.

10. Make sure you know how to get help in case of an emergency.

11. Review first-aid procedures and know where emergency stations are located.

12. Make sure you know where fire extinguishers are kept.

13. Know where the nearest emergency exits are located.

_____ _____

Employee Signature *Date*

_____ _____

Supervisor Signature *Date*

HCS CORPORATION

TRENCHING AND EXCAVATION
(Applicable OSHA Standard 1926.650-.652, Subpart P)

On the Job Evaluation

OSHA requires that a competent person inspect daily, excavations and the adjacent areas for possible cave-ins, failures of protective systems and equipment, hazardous atmospheres, or other hazardous conditions.

Cave-ins and Protective Support Systems

Excavation workers are exposed to many different hazards, but the main hazard is danger of cave-ins. HCS Corporation requires that all employees working in and around trenches or excavations (greater than 5 feet deep or if the competent person determines protective systems are needed less than 5 feet deep) be protected from cave-ins by the following methods:

1. Sloping and Benching Requirements outlined in 1926.652(b).
2. Support Systems, Shields, Bracing/Shoring and Other Protective Systems as outlined in 1926.652(c).

Other Hazards

In addition to cave-in hazards and secondary hazards related to cave-ins, there are other hazards from which workers must be protected during excavation-related work. These hazards include exposure to falls, falling loads and mobile equipment. To protect employees from these hazards, the following precautions must be taken:

- Keep materials (including spoil piles) or equipment that might fall or roll into an excavation, at least 2-feet from the edge of excavations, have retaining devices or both.

- Provide warning systems such as mobile equipment barricades, hand, or mechanical signals, or stop logs to alert operators of the edge of

excavation; if possible, keep the grade away from the excavation.

- Provide scaling to remove loose rock or soil or install protective barricades and other equivalent protection to protect employees against falling rock, soil, or materials.
- Prohibit employees under loads that are handled by lifting or digging equipment; to avoid being struck by any spillage or falling materials, employees are required to stand away from vehicles being loaded or unloaded.

Water Accumulation

Employees are prohibited from working in excavations where water has accumulated or is accumulating. Water removal equipment will be used to remove, control, or prevent water from accumulating and such operations will be monitored by the project superintendent. Diversion ditches, dikes or other suitable means will be used to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation.

Hazardous Atmospheres

Excavations greater than 4-feet in depth, as well as those where oxygen deficiency or hazardous atmosphere exists or could possibly exist, must be tested before an employee is allowed to enter. If a hazardous condition does exist, controls such as proper respiratory protection or ventilation must be provided. Controls used to reduce atmosphere contaminants to acceptable levels must also be tested regularly.

Access and Egress

HCS Corporation will provide employees with a safe means of access and egress to all excavations. In accordance with OSHA regulations, when employees are required to be in a trench 4-feet deep or more, adequate means of exit such as ladders, steps, ramps, or other safe means of egress must be provided and be within 25-feet of employees' lateral travel.

HCS CORPORATION

HEAVY EARTH MOVING & HANDLING EQUIPMENT (Applicable OSHA Standard 1926.600, Subpart O)

General

The safe operation of heavy equipment involves two very important areas:

1. Selection and training of operators

   Only able-bodied, trained, and qualified employees will be permitted to operate any piece of heavy equipment. Training will include a thorough review of hazards, safe and un-safe procedures, and a good working knowledge of the machine itself. All operators shall read the operators manual including all warnings and precautions. HCS Corporation requires all equipment operators to always wear seatbelts when operating heavy equipment. Project superintendents will see that proper supervision is exercised over an operator until assurance is established that the employee can be left on his own.

2. Maintenance

   Maintenance programs will be thorough, workable, and consistent with the manufacturer's specifications. Many injuries and considerable equipment damage can be averted through proper attention to such items as motors, blades, tracks, drives, wire ropes and sheaves, hydraulic and braking systems, and other vital parts.

   A systematic preventative maintenance program will be established, and records will be kept.

Safe Operating Procedures

The condition of equipment will be checked prior to operation. This will include brakes, clutches, steering mechanisms, and hydraulic and electrical systems. Any defects shall be reported to project superintendent immediately

for correction. All equipment operated by HCS Corporation shall have a Roll Over Protective Structure (ROPS).

Bulldozers and Tractors

Safety canopies/rollover devices must be in place to protect operators from falling material and rollovers.

Before starting down a hill, the blade should be lowered to secure the load of earth in front of it and maintain the load all the way down the hill. If the load is lost, the blade should not be lowered or jammed into the ground, as this may cause overturning. The bulldozer blade must never be used as a brake on a downhill grade.

Filling operations can be extremely dangerous. The material should be pushed over the edge, only as far as necessary. This could prevent the possible overturning of machine.

When coupling a tractor to other equipment, workers should stand clear of the space between units. The machine should be stopped, transmission placed in neutral, and the brakes set before a person is allowed to couple the equipment.

At the end of work shifts, or when leaving the machine, the power should be shut off, brakes set, blade landed, and the shift level placed in neutral.

Scrapers

Avoid sharp downhill turns and do not turn top-heavy with the apron up in the air.

When going downhill, the operator should not kick the machine out of gear because increased speed may make control of equipment difficult. Operator should leave the machine in gear and use brakes to control speed. If the brakes will not hold the load, the operator should drop or drag the bowl or make an emergency stop.

The scraper or dozer bowl should always be blocked up when blades are being replaced. After the scraper is lifted to the desired height, blocks should be placed under the bottom near the ground plates. Apron arms are raised to extreme height, and a block is placed under each arm, allowing the apron to drop enough to wedge each block firmly in place.

To prevent the scraper from slipping off the edge of a fill, keep the center of the fill low and outside edges high.

Shovels, Track Hoes and Loaders

All workers should be clear of the bucket swing and the cab rotation. Never swing the bucket over other workers.

When soil is soft, make sure the equipment is on solid foundation, such as mats or heavy planking, with outriggers fully extended before starting to operate.

Before operating on a bank next to an excavation, a check should be made with the project superintendent to determine whether shoring or bracing is necessary.

Never operate closer than 10 feet from overhead electric lines (for lines under 50 kV) or see that power is temporarily shut off or wires relocated. Always contact the power company to determine the voltage in the overhead lines and calculate the MSAD.

No one should be permitted in the cab with the operator.

Make sure the bucket and all appendages are kept on the ground, or on blocking when not being operated. Never leave the cab while master clutch is engaged.

Motor Trucks

No person should be permitted to remain in or on a truck being loaded by excavating equipment or crane, unless cab is adequately protected against heavy impact.

Material loaded should be within safe limits for the truck and should not project beyond the truck body in such a manner as to present a hazard to other vehicles, pedestrians, or structures.

Never carry a load more than the rated capacity of the vehicle. When necessary to operate nonpublic highways, do not exceed the legal, gross vehicle weight limits. Be sure proper permits have been secured before carrying any heavy load over a public highway.

Trucks regularly used for transporting personnel should be provided with side and end protection and safe seating to prevent falls. Some convenient means of mounting and dismounting the trucks should be provided.

Workers should not be permitted to get on or off a moving truck at any time.

Personnel should be required to ride only on approved passenger seats with available seatbelts. Personnel should never ride on running boards, fenders, bumpers, pickup beds, atop cabs or elsewhere unless it is designated in the operator's manual.

Dump trucks must not be used to carry personnel unless the body of the truck is locked to prevent operating.

General Safety Rules

Hard hats should be worn by operators when overhead hazards exist, this could include while on the jobsite, as well as the controls of a piece of equipment.

Operators should always check to make certain that other workers are in the clear before starting the machine.

Employees should not jump on or off machinery in motion.

Before repairs are made on earthmoving equipment, the operators should make certain that the motor is not running. Motors of all equipment should be stopped before refueling is done.

If possible, equipment should be driven entirely off the road at night. Where any portion of the machine projects into the road, it should be adequately marked with red light, flashers, or flares; red flags should be used in the daytime.

Unauthorized riding on equipment should not be permitted.

The operator should never leave machine on an inclined surface or on loose material with the motor idling because vibration could put the machine into motion.

Heavy earthmoving equipment should be equipped with a reverse signal alarm which will operate automatically with backward movement. The alarm should give an audible signal suitable for the conditions. The signal may be continuous or intermittent but should provide suitable alarm during the entire time of backward movement. Exceptions may be made for light-service trucks, power shovels, draglines, and double front end rollers.

HCS CORPORATION

HAND TOOLS, POWER TOOLS, AND WELDING
(Applicable OSHA Standard 1926.300 Subpart I, Subpart J)

GENERAL

Maintenance: Hand tools, power tools, and jacks shall be maintained in safe operating condition and used only for the purpose which they were designed. Damaged and defective tools shall be repaired or removed from service. Electrical cords shall not be used to raise or lower tools.

Storage: Tools shall not be left on elevated workspaces, and containers shall be provided for hand tools on the jobsite.

Guarding: The hazardous moving parts of power tools shall be safe guarded. Belts, gears, shafts, pulleys, sprockets, spindles, drums, and other rotating, reciprocating, or moving parts shall be isolated or guarded as set forth in the current edition of ANSI B15.1, "Safety Code for Mechanical Power Transmission Apparatus." Guards, as necessary, shall be provided to protect the operator and others from the following:

a. Point of operation
b. In-running nip joints
c. Rotating parts
d. Flying chips and sparks

Safety guards must never be removed when a tool is being used. For example, portable circular saws must be always equipped with guards. An upper guard must cover the entire blade of the saw. A retractable lower guard must cover the teeth of the saw, except when it contacts the work material. The lower guard must automatically return to the covering position when the tool is withdrawn from the work.

Grounding: Electric-powered tools shall be double insulated or effectively grounded.

Switches: On-off switches controlling the operation of hand-held powered tools shall conform to the following requirements:

a. Hand-held powered platen sanders, grinders with 2-inch or less diameter wheels, routers, planers, laminate trimmers, nibblers, shears, scroll saws, and jigsaws with blade shanks 0.25 inch wide or less may be equipped with only a positive on-off control.

b. Hand-held powered drills, tappers, fastener drivers, horizontal, vertical, and angle grinders with wheels exceeding 2 inches in diameter, disk sanders, belt sanders, reciprocating saws, and similar tools shall be equipped with a momentary contact on-off control. They may have a lock-on control provided the power can be shut off by a single motion of the same finger(s) that turns it on, and the switch is adequately guarded to prevent accidental operation.

c. Jackhammers, and similar pneumatic-powered hand tools and other hand-held power tools including chain saws, circular saws, percussion tools, shall be equipped with a constant pressure switch that shuts off power when pressure is released. This paragraph does not apply to concrete vibrators.

Personal protective equipment: Hand tool and power tool operators shall be provided with and use respective type(s) of personal protective equipment.

Hazardous conditions: Only non-sparking tools shall be used in locations where sources of ignition may cause an explosion or fire. Gasoline-powered tools shall not be used underground or in locations where toxic exhaust gases can accumulate. Impact tools including drift pins, wedges, and chisels shall be kept in a dressed condition or equipped with non-mushrooming heads. Employees shall not work under areas where hand-held tools are being used unless the tools are equipped with restraining straps or appropriate decking, planking, and netting are provided for employee protection.

PNEUMATIC TOOLS

Impact tools: Pneumatic impact tools shall be operated with safety clips or retainers installed to prevent tools being accidentally discharged from the chuck.

Air hoses: All connections, couplings, and splices in air lines exceeding 0.5-inch inside diameter shall be equipped with clips and wire rope or chain lashings. The clips and lashings will be installed in a manner that prevents whipping of the hose line should the connection, coupling, or splice fail. A safety device at the source of supply or branch line which will automatically reduce pressure in case of a line failure may be substituted provided the device is demonstrated as effective in preventing whipping.

Operating pressures: The manufacturer's safe operating pressure for hoses, pipes, valves, and fittings shall not be exceeded. Defective hoses, valves, and fittings shall not be exceeded. Defective hoses, valves, and fittings shall be removed from service.

Compressed air: Compressed air shall not be directed at any part of the body. Compressed air shall not be used for cleaning purposes except when reduced to less than 30 pounds per square inch and the operator protected by personal protective equipment. The 30 pounds per square inch requirement does not apply to sandblasting, green cutting, removal of mill scale, cleaning concrete forms, and similar cleaning operations.

Care of air hoses: Air hoses shall not be used for hoisting or lowering tools. Hoses shall not be laid on ladders, steps, scaffolds, or walkways in a manner creating a tripping hazard.

Airless spray guns: Airless spray guns shall be equipped with safety devices which will prevent pulling of the trigger until the safety device is manually released. In addition to the above, a diffuser nut to prevent high pressure release when the nozzle tip is removed and a nozzle tip guard to prevent the tip from contacting the operator or other equivalent protection shall be provided.

Nailers: Pneumatically driven nailers, staplers, and similar equipment provided with automatic fastener feed, which operate at more than 100 pounds per square inch, shall have a single-action trigger and a safety device on the muzzle to prevent the ejection of the fasteners unless the muzzle is in contact with the work surface.

GRINDING TOOLS

Requirement: The installation, guarding, use, and care of grinding tools shall comply with the standards set forth in the current ANSI B7.1, "Safety Code for the Use, Care, and Protection of Abrasive Wheels." Grinding tools shall not be used without the safety guards, protective flanges, and tool rests installed and maintained in proper adjustment.

Abrasive wheels: Abrasive wheels and scratch brush wheels shall not be operated more than their rated safe speed. Cracked or defective abrasive wheels shall be removed from service immediately.

Bench grinders: Bench-mounted and floor-stand grinders shall be provided with safety guards that are strong enough to withstand the effect of a bursting wheel. The guard shall not expose more than 90 degrees of the grinding wheel periphery and sides, except if the work is required to contact the wheel below the horizontal plane of the spindle, the angular exposure shall not exceed 125 degrees. The guard shall be provided with a readily adjustable tool rest that is maintained within 1/8 inch of the wheel, and an adjustable tongue maintained within 1/4 inch of the periphery of the wheel.

Cup-type wheels: Cup-type wheels used for external grinding shall be protected by either a revolving cup guard or a band-type guard.

Right angle head grinders: Right angle head grinders shall be provided with a guard having a maximum exposure angle of 180 degrees. The guard shall be located to be between the operator and the wheel.

Inspection: All abrasive wheels shall be closely inspected, and ring tested before mounting to ensure that they are free from cracks and defects.

Side grinding: Side grinding shall not be permitted unless the abrasive wheel is specifically designed for this purpose.

POWER SAWS

Circular saws: Bench-type circular saws shall be equipped with spreaders, anti-kickback devices, and guards that automatically enclose the exposed cutting edges. Portable hand-held circular saws shall be equipped with guards above and below the baseplate or shoe. The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. The lower guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work. As the blade is withdrawn, the lower guard shall automatically and instantly return to the covering position.

Operating speeds: The operating speed shall be permanently marked on all circular saws over 20 inches in diameter or operating speeds over 10,000 peripheral feet per minute. Only blades designed for use at the marked operating speed shall be used. When the saw is re-tensioned for a different speed, the marking shall be changed to indicate the new speed.

Radial arm saws: Radial arm saws and swing cutoff saws shall be equipped with (1) limit stops which prevent the leading edge of the blade from traveling beyond the edge of the table, (2) hoods and/or guards that protect the operator from flying material, direct the sawdust toward the back of the blade, and enclose all parts of the blade not in contact with the material being cut, (3) automatic brakes or automatic return devices, and (4) non-kickback fingers or dogs and spreader shall be installed when ripping.

Bandsaws: Bandsaw blades shall be fully enclosed except at the point of operation. The adjustable guide shall be adjusted within 1/2 inch of the work.

Unattended: Power saws shall not be left running unattended.

Sawdust collectors: Bench-type circular saws and radial saws used for production work shall be equipped with enclosed sawdust collectors.

Cleanup: Scrap and sawdust shall not be permitted to accumulate. The shop area shall be cleaned up at the end of each shift.

Defective blades: Cracked, bent, or otherwise defective blades shall be removed from service.

HYDRAULIC-POWERED TOOLS

Safe operating pressures: The manufacturer's safe operating pressure for hoses, valves, pipes, filters, and fittings shall not be exceeded.

Hydraulic fluid: Fluid in hydraulic-powered tools shall be fire resistant type approved by a recognized authority, such as Underwriters Laboratories or Factory Mutual.

Stationary hydraulic-powered presses: Presses shall be provided with guards that adequately contain flying particles forcibly expelled from the material being compressed.

POWDER-ACTUATED TOOLS

Requirement: Powder-actuated tools shall be designed, maintained, and used in accordance with the standards set forth in the current edition of ANSI A10.3, “Safety Requirements for Powder-Actuated Fastening Systems,” and the requirements of this section.

Operator qualification: Powder-actuated tools shall be operated and serviced only by persons who have been trained and certified in the safe use of such tools. Operators must possess an operator's card issued by a firm or person authorized to issue such cards.

Unauthorized use: Safeguards shall be taken to prevent the possession or use of these tools and their charges by unauthorized persons.

Flammable atmospheres: Powder-actuated tools shall not be used in explosive or flammable atmospheres.

Studs and fasteners: Only powder charges, studs, or fasteners specified by the manufacturer for the specified tool shall be used.

Safety features: Tools shall be designed to operate only when pressed against the work surface with a force at least 5 pounds greater than the weight of the tool. They shall be constructed so the tool cannot fire when dropped or during loading or preparation to fire.

Materials: Driving fasteners into soft or easily penetrated material is prohibited unless the material is backed to prevent complete penetration. Tools shall not be used on very hard or brittle materials such as cast iron, glazed tile, surface-hardened steel, glass block, live rock, face brick, or hollow tile.

Use: Tools shall not be loaded until just prior to firing. Loaded tools shall not be left unattended. Tools shall not be pointed at any person, and all parts of the body shall be kept clear of the muzzle.

Inspecting: Tools shall be inspected each day before loading to ensure that the safety devices are in proper working order. The inspection shall be conducted in accordance with the manufacturer's recommended inspection procedures.

High-velocity tools: High-velocity tools shall be used only for those applications where low-velocity tools will not meet the job requirements.

HAND-POWERED WINCHES AND HOISTS

Rated capacity: Hand-powered winches and hoists shall be used within the manufacturer's rated capacity, and the capacity shall be legibly marked on the winch or hoist.

Cranks: The use of hand cranks is prohibited unless the winch or hoist is equipped with self-locking dogs or the worm-gear type. Hand wheels shall not have projecting spokes or knobs.

LEVER AND RATCHET, SCREW, AND HYDRAULIC JACKS

Capacity: The manufacturer's rated capacity shall be legibly marked on all jacks and shall not be exceeded.

Overtravel: Jacks, of any type, shall have a positive stop to prevent overtravel.

Footing and blocking: Jacks shall be set on a stable and firm footing and cribbed or blocked where necessary to prevent settlement or dislodgment. Where there is a possibility of slippage, a wood block shall be placed between the jack and the load.

COME ALONG

Capacity: The manufacturer's rated capacity shall be legibly marked on all come along and shall not be exceeded.

Defects: Come along shall be removed from service when they have worn or kinked cables or links, deformed hooks, or defective ratcheting devices.

Structures: Care shall be taken to not overstress structures or structures supporting systems when using come along for leveling, plumbing, or positioning structures.

HANDTOOLS

Wrenches: Wrenches, including adjustable, pipe, and socket wrenches shall not be used when jaws are sprung to the point that slipping occurs.

Wood handles: The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

WELDING COMPRESSED GAS CYLINDER

Requirement: Compressed gas cylinders shall be constructed, inspected, and tested in accordance with Department of Transportation requirements.

Cylinder storage: On-site storage of gas cylinders shall conform to the following requirements:

a. *Separation*. Cylinders containing the same gas shall be stored in segregated groups and not intermingled with other gas cylinders. Empty gas cylinders shall be stored in the same manner.

b. *Confined spaces*. Cylinders shall be stored in well-ventilated spaces. Cylinders containing oxygen, acetylene, or fuel gases shall not be stored or taken into confined spaces.

c. *Flammable or combustible material*. Cylinders in storage shall be separated from flammable or combustible material by at least 20 feet or by a fire-resistive partition of at least 1-hour fire-resistive rating, and at least 5 feet high.

d. *Oxidizing gases*. Cylinders containing oxygen or oxidizing gases shall be separated from fuel gas cylinders by at least 20 feet or by a fire-resistive partition of at least 1 -hour fire-resistive rating, at least 5 feet high.

e. *Smoking restrictions*. Smoking or open flame shall not be permitted where cylinders are stored, and the area posted with **"DANGER-NO SMOKING"** or **"OPEN FLAME"** signs.

f. *Toxic gas*. Areas containing toxic gas in storage shall be appropriately posted.

Upright position: Compressed gas cylinders shall be always secured in an upright position except when being hoisted or used in special services or arrangements approved in writing by the manufacturer or gas supplier.

Cylinder valves: Cylinder valves shall be closed when cylinders are in storage, in transit, or not in use.

Valve caps: Cylinder valve caps shall be securely in place during storage, transit, and always when the regulator is not connected to the cylinder. Cylinders, secured on specialty trucks, may be moved within a jobsite with the regulators installed when the regulators and cylinder valves are adequately protected.

Transporting: Compressed gas cylinders transported by crane, hoist, or derrick shall be transported in cradles, nets, or skips; never directly by slings, chains, or magnets.

Valve wrenches: The valve wrench or wheel shall be in the operating position when the cylinder is in use.

Restricted use: Cylinders shall be used only for the designated purpose of containing a specific compressed gas for which they were designed. They shall be refilled only by the supplier.

Handling: Cylinders shall be handled in a manner which will not weaken or damage the cylinder or valve. They shall not be exposed to extremes of temperature, physical damage, or electrical current.

Oxygen: Oxygen cylinders and fittings shall be kept free of oil or grease and shall not be handled with oily hands or gloves. Oxygen shall not be directed at oily surfaces, greasy cloths, or into a container, storage tank, or vessel. Oxygen or other compressed gases shall not be used as a substitute for compressed air.

Defective cylinders: Leaking cylinders shall be removed to an isolated location out of doors, away from personnel, and sources of ignition. The valve shall then be cracked, permitting the gas to escape slowly. The cylinder shall be tagged **DEFECTIVE** and returned to the supplier. Leaking cylinders containing toxic gas shall be handled only by qualified personnel protected by appropriate personal protective equipment.

GENERAL WELDING AND CUTTING

Applicable standards: All welding and cutting apparatus, equipment, and operations shall be in accordance with the standards and recommendations set forth in the current edition of ANSI Z49.1, "Safety in Welding and Cutting."

Daily Inspection: Welding apparatus and equipment shall be inspected daily prior to use. Defective apparatus and equipment shall be removed from service, replaced, or repaired and re-inspected before being used again.

Fire extinguishers: Fire extinguishers rated 2-A:40-B:C units or larger shall be immediately available wherever welding or cutting is being carried out.

Fire protection: The following precautions shall be taken, as applicable, when welding or cutting:

a. *Flammable material.* Welding shall, whenever possible, be confined to areas free of combustible materials. When this is not possible, all combustible material shall be removed or protected from fire, sparks, and slag.

b. *Fire guards.* When welding, cutting, or heating is such that normal fire prevention precautions are not considered adequate, fireguards shall be assigned to the operation. They shall be on duty during the operations and for a sufficient period following the completion of the work to ensure that no possibility of fire exists. Fireguards shall be provided with necessary fire protection equipment and instructed in its use.

c. *Tests.* Before welding, cutting, or heating any material covered by a preservative coating whose flammability is unknown, a test shall be made to determine its flammability. No welding or cutting shall be done in any area that could contain flammable vapors or gases until the atmosphere has been tested and found safe.

d. *Shafts.* Noncombustible barriers shall be installed below welding or burning operations in or over a shaft or raise.

e. *Flammable and combustible liquids.* No welding, cutting, or burning shall be done in areas containing flammable and/or combustible liquids, vapors, or dusts.

f. *Walls.* When welding or cutting is performed on walls, floors, or ceilings where direct penetration of sparks or heat transfer may introduce a fire hazard to an adjacent area, the same precautions shall be taken on the opposite side as are taken on the side on which the welding is being performed.

Goggles and protective clothing: Welders and helpers shall wear proper protective clothing and eye protection. Further, other persons shall be protected from exposure to welding rays, flashes, sparks, molten metal, and slag. Welding screens shall be installed in repair shops and other areas where welding is done regularly.

Preservative coatings: When preservative coatings are highly flammable, they shall be removed from the area to be heated to prevent ignition. The following precautions shall be taken when the coatings are determined to be toxic:

a. *Confined spaces*. Welding and cutting in confined spaces will conform to requirements outlined in the confined space entry procedures. Additionally, all coated surfaces shall be stripped of the coating for a distance of at least 4 inches on each side of the cut or weld.

b. *Open air.* Employees in open air shall be protected by either an airline respirator or adequate local ventilation.

Ventilation: Ventilation and protection of employees welding, cutting, or heating in confined spaces shall conform to requirements contained in 1926.353.

GAS WELDING AND CUTTING

Equipment: Gas welding and cutting equipment shall be as listed by Underwriters Laboratories, Inc. or by Factory Mutual.

Gas cylinders: Gas cylinders shall be constructed, transported, handled, stored, used, and maintained.

Regulators: Pressure-reducing regulators shall be used only for the gas for which they were designed. Except for cracking the valve slightly to remove dust or dirt, gas shall not be released from a cylinder under pressure without attaching the pressure-reducing regulator to the cylinder valve. Acetylene regulators shall not be adjusted to permit a discharge greater than 15 pounds per square inch (gauge).

Torches: Torch valves shall be closed, and the gas supply shut off when work is suspended. Torch valves shall be checked for leaks at the beginning of each shift. Torches shall be lighted by friction lighters or other approved devices and not by matches or from hot work.

Check valves: All oxygen, acetylene, or other fuel gas-oxygen combinations used in cutting or welding shall have reverse flow check valves installed between the hose and the regulator.

Welding hose: Only properly marked and identified hose in good condition and specifically manufactured for oxyacetylene service shall be used for gas welding and cutting. Hose, which has been subjected to flashback or which indicates evidence of severe wear or damage, shall be removed from service. Containers used for storage of fuel gas hose shall be ventilated.

ARC WELDING AND CUTTING

Applicable standards: Electric arc welding apparatus shall comply with the National Electrical Manufacturer's Association EW1 "Electric Arc Welding Power Sources" and shall be installed, operated, and maintained in accordance with ANSI Z49.1, "Safety in Welding and Cutting."

Power circuits: Power circuits for electric arc welding equipment shall be installed and maintained in accordance with applicable provisions of the current NEC (National Electrical Code).

Grounding: Frames of all electric welding machines operated from power circuits shall be effectively grounded in accordance with current NEC standards. The ground for electric welding circuits shall be both mechanically and electrically adequate. Pipelines containing flammable gases or liquids, electrical conduits, chains, wire rope, cranes, hoists, or similar devices shall not be used for a ground.

Cables: Splices or repaired insulation shall not be permitted within 10 feet of the electrode holder. Cables shall be positioned so as not to create obstructions on walkways, scaffolds, stairs, or ladders.

Gasoline-driven arc welders: Gasoline-driven arc welders shall not be used in confined spaces, or underground in tunnels, shafts, conduits, etc.

INERT-GAS METAL ARC WELDING

Chlorinated solvents: Application of chlorinated solvents shall not be done within 200 feet of the exposed arc surfaces prepared with chlorinated solvents shall be thoroughly dry before welding is permitted on such surfaces.

Arc protection: Employees exposed to the arc shall be required to wear goggles with filter lenses. When two or more welders are exposed to each other's arc, filter lens goggles of suitable type shall be worn under the welding helmets. Hand shields designed to dissipate radiant energy shall be used when either the helmet is lifted, or the shield is removed.

Radiation: Welders and persons exposed to radiation shall wear protective clothing completely covering the skin to prevent harmful effects of ultraviolet rays.

HCS CORPORATION

MATERIAL HANDLING & BACK INJURY PREVENTION

Purpose

Appropriate materials storage and handling can help reduce job-site accidents and worker injuries. It can also make the construction process much more productive.

One of the leading causes of construction worker fatalities is being “struck by” objects. The following basic materials handling and storage principles can help reduce “struck by” incidence.

Methods of Prevention

Whether moving materials manually or mechanically, HCS Corporation employees shall be aware of the potential hazards associated with the task at hand and know how to exercise control over their workplaces to minimize danger.

Moving, Handling, and Storing Materials

When manually moving materials, HCS Corporation employees shall seek help when a load is so bulky that it cannot be properly grasped or lifted, when they cannot see around or over it, or when load cannot be safely handled.

When a HCS Corporation employee is placing blocks under raised loads, the employee shall ensure that the load is not released until their hands are clearly removed from the load. Blocking materials and timbers should be large and strong enough to support the load safely. Materials with evidence of cracks, rounded corners, splintered pieces, or dry rot shall not be used for blocking.

Handles and holders shall be attached to loads to reduce chances of getting fingers pinched or smashed. Workers shall also use appropriate protective equipment. For loads with sharp or rough edges, wear gloves or other hand and firearm protection. To avoid injuries to the hands and eyes, use gloves and eye protection. When loads are too heavy or bulky, each HCS Corporation employee shall also wear steel-toed safety shoes or boots to prevent foot injuries if the worker slips or accidentally drops a load.

When mechanically moving materials, avoid overloading the equipment by letting the weight, size and shape of the materials being moved dictate the type of equipment used for transporting it. All materials handling equipment has rated capacities that determine the maximum weight the equipment can safely handle and the conditions under which it can handle those weights.

The equipment-rated capacities must be displayed on each piece of equipment and must not be exceeded except for load testing.

Stored materials must not create a hazard. Storage areas must be kept free from accumulated materials that may cause tripping, fires, or explosions or that may contribute to the harboring or rats and other pests. When stacking and piling materials, it is important to be aware of such factors as the materials' height and weight, how accessible the stored materials are to the user, and the condition of the containers where the materials are being stored.

All bound material should be stacked, placed on racks, blocked, interlocked, or otherwise secured to prevent it from sliding, falling, or collapsing. A load greater than that approved by a building official may not be placed on any floor of a building or other structure. Where applicable, load limits approved by the building inspector should be conspicuously posted in all storage areas.

When stacking materials, height limitations should be observed. For example, lumber must be stacked no more than 16 feet high if it is handled manually; 20 feet is the maximum stacking height if a forklift is used. For quick reference, walls or posts may be painted with stripes to indicate maximum stacking heights.

Used lumber must have all nails removed before stacking. Lumber must be stacked and leveled on solidly supported bracing. The stacks must be stable and self-supporting. Stacks of loose bricks should not be more than 7 feet in height. When masonry blocks are stacked higher than 6 feet, the stacks should be tapered back one-half block for each tier above the 6-foot level.

Bags and bundles must be stacked in interlocking rows to remain secure. Bagged material must be stacked by stepping back the layers and cross keying the bags at least every ten layers. To remove bags from the stack, start from the top row first. Baled paper and rags stored inside a building must not be closer than 18 inches to the walls, partitions, or sprinkler heads. Boxed materials must be banded or held in place using cross-toes or shrink plastic fiber.

Drums, barrels, and kegs must be stacked symmetrically. If stored on their sides, the bottom tiers must be blocked to keep them from rolling. When stacked on end, put plank, sheets of plywood dunnage or pallets between each tier to make a firm, flat, stacking surface. When stacking materials two or more feet high, the bottom tier must be chocked on each side to prevent shifting in either direction.

When stacking, consider the need for availability of the material. Material that cannot be stacked due to size, shape or fragility can be safely stored on shelves or in bins. Structural steel, bar stock, poles, and other cylindrical materials, unless in racks, must be stacked and blocked to prevent spreading or tilting, pipes and bars should not be stored in racks that face main aisles; this could create a hazard to passers-by when supplies are being removed.

Back Injury Prevention

Back injury prevention training is necessary because of the following facts:

- Most back injuries occur when picking up less than one pound.
- Eight out of ten Americans will eventually suffer a back injury.
- Once a back injury occurs, a future incident is three to four times more likely.
- When you bend at the waist to pick up 100 pounds, ¾ ton of force is exerted on the lower back.
- Some back injuries occur during slips, trips, and falls.

The number one cause of back injury is "improper lifting." Some of the types of injuries resulting from improper lifting are:

- Sprains and/or strains – weak muscles are stretched and torn by poor posture and aggravated by improper lifting, twisting, and bending.
- Disk problems – slipped disks, contusions and ruptures cause spinal cord damage, numbness, or pain.
- Fractured vertebrae – usually the result of a fall.

Improper lifting can be responsible for causing painful, and sometimes permanent, damage to your back. Listed below is the simple structure of the human back.

1. **Cervical Curve** – The neck, consists of eight vertebrae which allow head movement.
2. **Thoracic Curve** – The middle back, consists of 12 vertebrae with little mobility.
3. **Lumbar Curve** – The lower back, consists of five vertebrae which hold most body weight.
4. **Sacrum Curve** – The base of the spine, consists of five vertebrae.
5. **Coccyx** – The tail bone, consists of four fused vertebrae.

Some of the items to avoid when safeguarding your back are:

- Bending the back, bend at knees.
- Twisting the back, move feet.
- Extending or reaching to lift, slide load toward you or get help.
- Walking on wet surfaces.
- Excessive twisting or straining of your back while attempting to move in areas such as restricted areas or some confined spaces.

One of the best methods for preventing beck injury is to follow the APL system as follows:

1. Assess the load – path, look for obstructions, doors, extension cords; load size, is it too large or too awkward.
2. Position yourself – feet, get close to the load; grip and get the load close to your body; balance the load.
3. Lift the load – bend at knees and lift with legs.

Another back-injury prevention system that has become very common-place, is the practice of "Ergonomics." Following are some examples of applied "Ergonomics:"

- Use a table, box, or bench whenever possible to avoid bending over for long periods of time.
- Change your position frequently by stretching, standing, bending, or sitting.
- Avoid bending or twisting your back, use your knees to bend, pivot your feet to twist.
- Position items in the work area no lower than 15 inches and no higher than 55 inches to avoid extending or reaching when lifting; slide the object toward you or get assistance.
- Avoid storing heavy objects above or below waist height.
- Avoid lifting things you cannot see over.

HCS CORPORATION

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

A. PURPOSE

The purpose of this exposure control plan is to eliminate or minimize employee occupational exposure to blood or certain other bodily fluids by educating employees on the hazards of bloodborne pathogens in construction.

B. BACKGROUND AND DEFINITIONS

Blood is the most important fluid in the human body. However, blood can sometimes transmit diseases such as Hepatitis and HIV, the virus that causes AIDS.

These diseases are bloodborne pathogens, disease-causing microorganisms that are transmitted through blood and other bodily fluids.

Because of the serious nature of bloodborne pathogens, it is important that you understand what they are, how they are transmitted, and how you can protect yourself.

We want you to understand the hazards of bloodborne pathogens, what to do if you suffer an exposure incident, and what HCS Corporation is doing to help you avoid potential infection.

To help you understand bloodborne pathogens please refer to the following definitions:

Bloodborne Pathogens – Microorganisms that are present in human blood that can cause disease in humans. These pathogens include Hepatitis Viruses and Human Immunodeficiency Virus (HIV).

Exposure Incident – When a person has contact with blood or other potentially infectious materials. This contact includes specific eye, mouth, other mucous membranes, non-intact skin, or parenteral contact (puncture, human bites, cuts, and abrasions).

Non-intact Skin – Skin that has cuts, abrasions, or other openings through which bloodborne pathogens could enter the bloodstream.

Parenteral – Taken into the body by Injection, infusion, or implantation, not through the alimentary canal.

Potentially Infectious Materials – Human blood, bodily fluid around organs, saliva, fluid in joints, fluid that protects fetuses, semen, and vaginal secretions.

Source Individual – Any individual, living or dead, whose blood or other potentially infectious materials may be a source of exposure.

Universal Precautions – An approach to infection control in which all human blood and certain human body fluids are treated as if known to be infectious for bloodborne pathogens.

Occupational Exposure – Reasonably anticipated employee contact with blood or other potentially infectious materials that may result from the performance of employee's duties. This includes skin, mucous membrane, or parenteral contact.

C. EDUCATION

1. First and foremost, when providing first aid or CPR to a patient protect yourself first and then treat the victim.

2. Attitude is a critical element of protection. The right attitude means taking universal precautions. **Treat all human blood and body fluids as if they are infectious!** If you come upon an accident scene, assume that all fluids on scene are infectious. Avoid any unnecessary contact or inappropriate actions that could cause infection.

3. Personal Protective Equipment will be provided at all HCS Corporation jobsites in the First Aid Kits and trauma kits (where applicable). The primary goal as the designated first aid provider is to prevent infectious fluids from encountering you or your clothes.

4. Housekeeping is important. All contaminated surfaces must be decontaminated properly. All work surfaces or equipment that has been contaminated must be cleaned with appropriate disinfectant such as 1-part bleach to 10 parts water and PPE must be worn during cleanup operations to prevent contact with infected surfaces.

5. Waste Disposal - regulated waste will be placed in containers which are closeable, constructed to contain all contents and prevent leakage of fluids during handling, storage, transportation, or shipping. Instructions from the jobsite first aid kit or trauma kit shall be followed.

   Disposal of all regulated waste will be in accordance with applicable State regulations.

6. Hepatitis Vaccines and Post-Exposure Evaluation and Follow-up:
   HCS Corporation will make available the Hepatitis vaccines and vaccination series to all employees who have had an occupational exposure incident, and post exposure follow-up.

D. STEPS TO TAKE IF YOU ARE EXPOSED TO BLOODBORNE PATHOGENS

1. Flush the area on your body that was exposed with warm water, then wash with soap and water. Vigorously scrub all areas.

2. If you have an open wound, squeeze gently to make bleed, then wash with soap and water.

3. Notify your supervisor, who will initiate our post-exposure procedures.

4. Go to your supervisor approved designated health care provider for treatment following an exposure incident.

5. You will be counseled by a physician regarding the risk of HIV or Hepatitis virus infection and any follow up treatment needed.

6. Hepatitis vaccinations will be made available after the employee has a potential occupational exposure unless, the employee has previously received the complete Hepatitis vaccination series, or antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

   HCS Corporation will ensure that all medical evaluations and procedures including the Hepatitis vaccines and vaccination series and post exposure follow-up, including prophylaxis are:

   - Made available at no cost to the employee.
   - Made available to the employee at a reasonable time and place.
   - Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional.
   - Provided according to the recommendations of the US Public Health Service.

   All laboratory tests will be conducted by an accredited laboratory at no cost to the employee.

Post Exposure Evaluation and Follow-up

All exposure incidents will be reported, investigated, and documented. When the employee incurs an exposure incident, it will be reported to the immediate supervisor.

Following a report of an exposure incident, the exposed employee will immediately receive a confidential medical evaluation and follow-up.

Collection and testing of blood for HBV and HIV serological status will comply with the following:

- The exposed employee's blood will be collected as soon as feasible and tested after consent is obtained.
- The employee will be offered the option of having their blood collected for testing of the employee's HIV/HBV serological status. The blood sample will be preserved for up to 90 days to allow the employee to decide if the blood should be tested for HIV serological status.

All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up. All post exposure follow-up will be performed by our designated health care providers.

E. EXPOSURE DETERMINATION

HCS Corporation does not anticipate that you will suffer a bloodborne pathogen exposure incident in the performance of your duties. There is at least one certified first-aid provider on your project and that person has received bloodborne pathogen training.

Bloodborne pathogens are not transmitted by casual contact such as touching or sharing equipment. The most common ways that people become infected by bloodborne pathogens is through sexual transmission or intravenous drug use. However, any contact with infected blood or body fluids carries the risk of potential infection.

The chances of becoming infected by bloodborne pathogens on the job are slim. According to the U.S. Centers for Disease Control and Prevention, the chances of a person becoming infected with HIV as the result of a cut with a contaminated object is less than four tenths of one percent.

The chances of becoming infected with HBV (Hepatitis B Virus) are higher. In each milliliter of blood (1/1000 of a litter) there are approximately 10 million viral particles. A dose of only 10,000 particles is enough to acquire this disease. Drops of blood too small to

see can be transmitted into the body through the eyes, nose, mouth, or though undetected cuts in the skin.

Irrational fears about workplace exposure to bloodborne pathogens should be prevented but these diseases should not be treated lightly.

HCS CORPORATION

LEAD – WRITTEN PROGRAM

A. Permissible Exposure Limit (PEL)

The OSHA standard sets a permissible exposure limit (PEL) of 50 micrograms of lead per cubic meter of air (50 ug/m(3)), averaged over an 8-hour workday that is referred to as a time-weighted average (TWA). This is the highest level of lead in air to which an employee may be permissibly exposed to over an 8-hour workday. However, since this is an 8-hour average, short exposures above the PEL are permitted so long as**,** for each 8-hour workday, the average exposure does not exceed this level.

B. Exposure Assessment

If lead is present in the workplace in any quantity, HCS Corporation is required to make an initial determination of whether any employee's exposure to lead exceeds the action level (30 ug/m(3) averaged over an 8-hour day). Employee exposure is that exposure which would occur if the employee were not using a respirator. This initial determination requires HCS Corporation to monitor workers' exposure, unless HCS Corporation has objective data that can demonstrate conclusively that no employee will be exposed to lead more than the action level. Where objective data is in lieu of actual monitoring, HCS Corporation must establish and maintain an accurate record, documenting its relevancy in assessing exposure levels for current job conditions. If such objective data is available, HCS Corporation need proceed no further on employee exposure assessment until such time that the conditions have changed, and the determination is no longer valid. Objective data may be compiled from various sources, e.g., insurance companies and trade associations and information from suppliers or exposure data collected from similar operations. Objective data may also be comprised from previously collected sampling data included in the monitoring area. If it cannot be determined through using objective data that the employee exposure is less than the action level, HCS Corporation must conduct monitoring or must rely on relevant previous personal sampling, if available. Where monitoring is required for the initial determination, it may be limited to a representative number of employees who are reasonably expected to have the highest exposure levels. If HCS Corporation has conducted appropriate air sampling for lead in the past 12 months, HCS Corporation may use these results, provided they are applicable to the same employee tasks and exposure conditions and meet the requirements for accuracy as specified in the standard. If this initial determination shows that a reasonable possibility exists that any employee may be exposed, without regard to respirators, over the action level, HCS Corporation must set up an air monitoring program to determine the exposure level representative of each employee exposed to lead at the workplace. In carrying out this air monitoring program, HCS Corporation is not required to monitor the exposure of every employee, but HCS Corporation must monitor a representative number of employees and job

types. Enough sampling must be done to enable each employee's exposure level to reasonably represent full shift exposure. In addition, these air samples must be taken under conditions that represent each employee's regular, daily exposure to lead. The OSHA standard lists certain tasks which may likely result in exposure to lead more than the PEL and, in some cases, exposures more than 50 times the PEL.

Until HCS Corporation performs an employee exposure assessment as required above, and documents that the employee's lead exposure is not above the PEL, HCS Corporation will treat the employee as if the employee were exposed to lead above the PEL and not in excess of 500 ug/m(3) or (10 x PEL) and will implement employee protective measures as described below. The tasks covered by this requirement are:

1. Locations where lead containing coatings or paint are present.
2. Manual demolition of structures (e.g., drywall), manual scraping, manual sanding, heat gun applications, and power tool cleaning with dust collection system.
3. Spray painting with lead paint.

Until HCS Corporation performs an employee exposure assessment as required above and documents that the employee performing any of the listed tasks is not exposed in excess of 500 ug/m(3), HCS Corporation will treat the employee as if the employee were exposed to lead in excess of 500 ug/m(3) and will implement employee protective measures as described below. Where HCS Corporation does establish that the employee is exposed to levels below 500 ug/m(3), HCS Corporation may provide the exposed employee with the appropriate respirator prescribed for such use at such lower exposures, in accordance with Table 1 of this section. The tasks covered by this requirement are:

1. Using mortar containing lead and lead burning.
2. Where paint or coatings containing lead are present, rivet busting, power tool cleaning without dust collection systems, clean-up activities where dry expendable abrasives are used, and abrasive blasting enclosure movement and removal.

Until HCS Corporation performs an employee exposure assessment as required above and documents that the employee performing any of the listed tasks is not exposed to lead in excess of 2,500 ug/m(3) (5 x PEL), the employer will treat the employee as if the employee were exposed to lead in excess of 2,500 ug/m(3) and will implement employee protective measures. Where HCS Corporation does establish that the employee is exposed to levels of lead below 2,500 ug/m(3), HCS Corporation may provide the exposed employee with the appropriate respirator prescribed for use at such lower exposure, in accordance with Table I of this section. Interim protection as described in this paragraph is required where lead containing coatings or paint are present on structures when performing:

1. Abrasive blasting.
2. Welding.
3. Cutting.
4. Torch burning.

If an employee is performing any of these tasks, HCS Corporation must provide that employee with the appropriate respiratory protection, protective clothing, and equipment, change areas, hand washing facilities, biological monitoring, and training until such time that an exposure assessment is conducted that demonstrates that employee's exposure is below the PEL. If an employee is exposed to lead, and air sampling is performed, HCS Corporation is required to notify employee in writing within 5 working days of the air monitoring result that represents the employee's exposure. If the results indicate that the employee's exposure exceeds the PEL (without regard to employee's use of a respirator), HCS Corporation must also notify employee of this in writing and provide employee with a description of the corrective action that has been taken or will be taken to reduce the employee's exposure. Employee's exposure must be rechecked by monitoring, at least every six (6) months if the employee's exposure is at or over the action level but below the PEL. HCS Corporation may discontinue monitoring for employees if two (2) consecutive measurements, taken seven (7) days apart, are at or below the action level. Air monitoring must be repeated every three (3) months if the employee is exposed over the PEL. HCS Corporation must continue monitoring for employees at this frequency until two (2) consecutive measurements, taken seven (7) days apart, are below the PEL but above the action level, at which time HCS Corporation must repeat monitoring of the employee's exposure every six (6) months and may discontinue monitoring only after the employee's exposure level drops below the action level. However, whenever there is a change of equipment, process, control, or personnel or a new type of job is added at the employee's workplace that may result in new or additional exposure to lead, HCS Corporation must perform additional monitoring.

C. Methods of Compliance

HCS Corporation is required to assure that no employee is exposed to lead more than the PEL as an 8-hour TWA. The OSHA standard for lead in construction requires employers to institute engineering and work practice controls including administrative controls to the extent feasible to reduce employee exposure to lead. Where such controls are feasible but not adequate to reduce exposures below the PEL, they must be used to reduce exposures to the lowest level that can be accomplished by these means and then supplemented with appropriate respiratory protection. HCS Corporation is required to develop and implement a written compliance program prior to the commencement of any job where employee exposures may reach the PEL as an 8-hour TWA. The OSHA standard identifies the various elements that must be included in the plan. In addition, the HCS Corporation compliance plan must specify the means that will be used to achieve compliance and where controls are required, including any engineering plans or studies that have been used to select the control methods. If administrative controls involving job rotation are used to reduce employee exposure to lead, the job rotation schedule must be included in the compliance plan. The

plan also must detail the type of protective clothing and equipment, including respirators, and housekeeping and hygiene practices that will be used to protect the employee from the adverse effects of exposure to lead. The written compliance program must be made available, upon request, to affected employees and their designated representatives. Finally, the plan must be reviewed and updated every six (6) months to assure it reflects the status in exposure control.

D. Respiratory Protection

HCS Corporation is required to provide and assure employee's proper use of respirators when employee's exposure to lead is not controlled below the PEL by other means. HCS Corporation must pay the cost of the respirator when the PEL level is above the exposure limit. Further, HCS Corporation is also required to provide an employee a respirator even if employee's air exposure level is not above the PEL whenever an employee requests one. The employee might request a respirator when, for example, the employee has received medical advice that the employee's lead absorption should be reduced, or if the employee intends to have children in the near future and wants to reduce the level of lead in the employee's body to minimize adverse reproductive effects. While respirators are the least satisfactory means of controlling employee's exposure, they can provide significant protection if properly chosen, fitted, worn, cleaned, maintained, and replaced when they stop providing adequate protection. HCS Corporation is required to select respirators from the types listed in Table I of the Respiratory Protection of the OSHA standard. Any respirator chosen must be approved by the Mine Safety Health Administration (MSHA), or the National Institute for Occupational Safety and Health (NIOSH). This respirator selection table will enable HCS Corporation to choose a type of respirator that will give the employee the proper amount of protection based on the employee's airborne lead exposure. HCS Corporation may select a type of respirator that provides greater protection than that required by the OSHA standard; that is, one recommended for higher concentrations of lead than is present in the workplace.

HCS Corporation has a Respiratory Protection Program. This program includes written procedures for the proper selection, use, cleaning, storage, and maintenance of respirators. HCS Corporation must assure that employee's face piece fit properly. Proper fit of a respirator face piece is critical. Obtaining proper fit on each employee may require HCS Corporation to make available two or three different mask types. To assure that the employee's respirator fits properly and that the face piece leakage is minimized, HCS Corporation must give employee either a qualitative fit test or a quantitative fit test (if employee uses a negative pressure respirator).

Any respirator which has a filter, cartridge, or canister which cleans the air before the employee breathes, and which requires the force of the employee's inhalation to draw the air through the filtering element is a negative pressure respirator.

A positive pressure respirator supplies air to the employee directly. A quantitative fit test uses a sophisticated machine to measure the amount, if any, of test material that leaks from the face piece of the employee's respirator. The employee must also receive from HCS Corporation proper training in the use of respirators.

HCS Corporation must test the effectiveness of the employee's negative pressure respirator initially and at least once every six (6) months thereafter with a "qualitative fit test". In a qualitative fit test, the fit of the face piece is checked by seeing if the employee can smell substance placed outside the respirator. The OSHA standard provides that if the employee's respirator uses filter elements, the employee must be given the opportunity to change the filter element whenever an increase in breathing resistance is detected. The employee also must be permitted to periodically leave their work area to wash their face and respirator face piece whenever necessary to prevent skin irritation. If the employee is ever having difficulty in breathing during the fit test or while using a respirator, HCS Corporation must make a medical examination available to the employee to determine whether the employee can safely wear a respirator. The result of this examination may be to give the employee a positive pressure respirator (which reduces breathing resistance) or to provide alternative means of protection.

E. Protective Work Clothing and Equipment

If the employee is exposed to lead above the PEL as an 8-hour TWA, without regard to employee's use of a respirator, or if the employee is exposed to lead compounds such as lead arsenate or lead azide, which can cause skin and eye irritation, HCS Corporation must provide employee with protective work clothing and equipment appropriate for the hazard. If work clothing is provided, it must be provided in a clean and dry condition at least weekly, and daily if the airborne exposure to lead is greater than 200 ug/m(3). Appropriate protective work clothing and equipment can include coveralls or similar full-body work clothing, gloves, hats, shoes, or disposable shoe coverlets, and face shields or vented goggles. HCS Corporation is required to provide all such equipment at no cost to the employee. In addition, HCS Corporation is responsible for providing repairs and replacement as necessary, and is responsible for the cleaning, laundry or disposal of protective clothing and equipment. The OSHA standard requires that HCS Corporation assure that the employees follow good work practices when the employees are working in areas where employee exposure to lead may exceed the PEL.

The following procedures concerning protective clothing and equipment should be observed prior to beginning work. (Where applicable)

1. Designated changing areas.
2. Use work garments of appropriate protective gear, including respirators prior to entering work area.
3. Store any clothing not worn under protective clothing in a designated changing area.

Employees should follow these procedures upon leaving the work area:

1. HEPA vacuum heavily contaminated protective clothing while still being worn. At no time may lead be removed from protective clothing by any means that result in uncontrolled dispersal of lead into the air.
2. Remove shoe covers and leave them in the work area.
3. Remove protective clothing and gear in the dirty area of the designated changing area. Remove protective coveralls by carefully rolling down the garment to reduce exposure to dust.
4. Remove respirator last.
5. Wash hands and face.

Employees should follow these procedures upon finishing work for the day in addition to the procedures described above:

1. Place disposable coveralls and shoe covers with the abatement waste. (Where Applicable)
2. Contaminated clothing that is to be cleaned, laundered, or disposed of must be placed in closed containers in the change room.
3. Clean protective gear, including respirators, in accordance with the OSHA standard.
4. Wash hands and face again. If showers are available, take a shower and wash hair. If shower is not available at the work site, shower, and wash hair immediately at home.

F. Housekeeping

HCS Corporation must establish a housekeeping program sufficient to maintain all surfaces as free as practical of accumulation of lead dust. Vacuuming is the preferred method of meeting this requirement. The use of compressed air to clean the floor and other is generally prohibited unless the removal with compressed air is done in conjunction with ventilation systems designed to contain dispersal of lead dust. Dry or wet sweeping, shoveling, or brushing may not be used except where vacuuming or other equally effective methods have been tried and do not work. Vacuums must be equipped with a special filter called a high-efficiency particulate air (HEPA) filter and emptied in a manner that minimizes the reentry of lead into the work area.

G. Hygiene Facilities and Practices

The OSHA standard requires that hand washing facilities be provided where occupational exposure to lead occurs. In addition, change areas, showers, and lunchrooms or eating areas are to be made available to workers exposed to lead above the PEL. HCS Corporation must assure that except in these facilities, food and beverages are not present or consumed, tobacco products are not present or used, and cosmetics are not applied, where airborne exposures are above the PEL. Change rooms provided by HCS Corporation must be

equipped with separate storage facilities for protective clothing and equipment and street clothes to avoid cross- contamination. After showering, no required protective clothing and equipment worn during the shift may be worn home. It is important that the contaminated clothing and equipment be removed in the change areas and not be worn home, or the employee will extend the employee's exposure to the employee's family since lead from the employee's clothing can accumulate in the employee's car, house, etc. Lunchrooms or eating areas may not be entered with protective clothing or equipment unless the surface dust has been removed by vacuuming, downdraft booth, or other cleaning method. Finally, employees exposed above the PEL must wash both their hands and faces prior to eating, drinking, smoking, or applying cosmetics. All of the facilities and hygiene practices above are essential to minimize additional sources of lead absorption from inhalation or ingestion of lead that may accumulate on the employee, the employee's clothes or on the employee's possessions. Strict compliance with these provisions can virtually eliminate several sources of lead exposure which significantly contribute to excessive lead absorption.

H. Employee Information and Training

HCS Corporation is required to provide an information and training program for all employees exposed to lead above the action level or who may suffer skin or eye irritation from lead compounds such as lead arsenate and lead azide. The program requires training these employees regarding the specific hazards associated with their work environment, protective measures which can be taken, including the contents of any compliance plan in effect, the danger of lead to their bodies (including their reproductive systems), and their rights under the law. All employees must be trained prior to initial assignment to the areas where there is a possibility of exposure over the action level. This training program must also be provided at least annually thereafter unless further exposure above the action level will not occur.

I. Signs

The OSHA standard requires that the following warning signs be posted in work areas where the exposure to lead exceeds the PEL:

1. Warning Lead Work.
2. Poisonous Area.
3. No Smoking or Eating.

These signs are to be posted and maintained in a manner which assures that the legend is readily visible.

J. Record Keeping

HCS Corporation is required to keep all records of exposure monitoring for airborne lead. These records must include the name and job classification of employees measured, details of the sampling and analytical techniques, the results of the sampling, and the type of respiratory protection being worn by the person sampled. Such records are to be retained for at least 30 years. HCS Corporation is also required to keep all records of biological monitoring and medical examination results. These records must include the names of the employees, the physician's written opinion, and a copy of the results of the examination. Medical records must be preserved and maintained for the duration of the employment plus 30 years. However, if the employee's duration of employment is less than one (1) year, the employer need not retain that employee's medical records beyond the period of employment if they are provided to the employee upon termination of employment. Record keeping is required if the employee is temporarily removed from the employee's job under the medical removal protection program. This record must include the employee's name and social security number, the date of the employee's removal and return, how the removal was or is being accomplished, and whether the reason for the removal was an elevated blood lead level. HCS Corporation is required to keep each medical removal record only for as long as the duration of an employee's employment. The OSHA standard requires that if the employee requests to see or copy environmental monitoring, blood lead levels monitoring, or medical removal records, they must be made available to the employee or to a representative that they authorize. Medical records other than the BLL's must also be provided upon request to the employee, to the employee's physician or any other person who the employee may specifically designate.

HCS CORPORATION

CONFINED SPACES IN CONSTRUCTION

1.0 Purpose and Scope

1.1 This procedure establishes requirements for HCS Corporation employees to participate in entries into, or attendance of, confined space/limited egress (CS/LE) locations.

1.2 This procedure applies to all HCS Corporation employees and operations.

2.0 Terms and Definitions

2.1 **Asphyxiant** – An airborne substance that can cause suffocation. Simple asphyxiants (e.g., carbon dioxide, nitrogen, argon, etc.) physically displace oxygen from the atmosphere; chemical asphyxiants (e.g., carbon monoxide, hydrogen cyanide, etc.) prevent the body from utilizing oxygen in the atmosphere.

2.2 **Attendant** – An individual who is stationed outside of a permit-required confined space to monitor authorized entrants and to initiate emergency response if necessary.

2.3 **Confined Space** – A space that:

- Is large enough and so configured that an employee can physically enter and perform assigned work.
- Has limited or restricted means for entry or exit.
- Is not designed for continuous human occupancy.
- In which atmospheric hazards may occur.

2.4 **Competent Person** – The designated individual who evaluates the hazards in the space and confirms the controls and procedures outlined in the plans and permits.

2.5 **Entrant** – Individual who enters the CS/LE to perform the task(s) as defined in the entry permit and mitigation/control procedures.

2.6 **Entry** – The action by which a person passes through an opening into a confined space. Entry is considered to have occurred as soon as any part of the body breaks the opening of a confined space.

2.7 **Entry Permit** – A written or printed document that controls entry into a permit-required confined space.

2.8 **Entry Supervisor** – An employee responsible for determining if acceptable entry conditions are present, for authorizing entry into a permit-required confined space, for overseeing entry operations, and for terminating entry.

2.9 **Hazardous Atmosphere** – One or more of the following atmospheres that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue, injury, or acute illness:

- Oxygen concentrations below 19.5% or above 23.5%.
- Flammable atmospheres (concentrations ≥ 10% of the lower explosive limit).
- Toxic environments (concentrations > than the permissible exposure limit).

2.10 **Non-Permit Required Confined Spaces (NPRCS)** – Spaces that do not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm. These spaces do not require specific entry procedures and are only permissible as allowed by legislation.

2.11 **Hot Work** – Any task that may produce a spark or source of ignition (e.g., welding, cutting, etc.).

2.12 **Immediately Dangerous to Life or Health (IDLH)** – The National Institute for Occupational Safety and Health (NIOSH) exposure limit for the airborne concentration of a substance that can cause death, serious or irreversible health consequences, or inability to escape within 30 minutes.

2.13 **Lower Explosive Limit (LEL)** – The lowest concentration of a flammable gas/vapor in air which will ignite.

2.14 **Oxygen-deficient** – An atmosphere with an oxygen concentration less than 19.5%.

2.15 **Oxygen-enriched** – An atmosphere with an oxygen concentration greater than 23.5%.

2.16 **Permit-Required Confined Space (PRCS)** – A confined space that exhibits one or more of the following properties:

- 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 inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section.
- Contains any other recognized safety or health hazard.

2.17 **Physical Hazard –** A nonchemical hazard that may cause cuts, abrasions, suffocation, crushing, trauma, hearing loss, burns, or radiant energy effects (e.g., welding).

2.18 **Upper Explosive Limit (UEL) –** The highest concentration of a flammable gas/vapor in air that will ignite.

3.0 Procedure for Permit Required Confined Space Entry

3.1 Roles and Responsibilities

3.1.1 **General Managers**

- Make available confined space training to employees engaged in projects covered by this procedure. This training must be completed and documented prior to initial assignment, prior to a change in assigned duties, if a new hazard has been created and/or if special deviations have occurred.

3.1.2 **Project Managers**

- Determine alternative procedures that eliminate the need for entering confined spaces.
- Consult with the HCS Corporation Safety Coordinator regarding project specific requirements for confined space entries.
- Inform the field team about the client's or facility's requirements for confined space entries.
- Verify that only trained, authorized employees work in or near confined spaces.
- Ensure that written Confined Space Entry Procedures and permits are prepared for each PRCS entry.
- Assign an **Entry Supervisor** to be in control of all activities associated with the confined space.

3.1.3 **Competent Person**:

- Meet the CS/LE requirements that are defined by OSHA regulations.
- Is delegated authority to take appropriate actions and to commit resources to identify and mitigate safety and health issues associated with CS/LE entries.
- Can identify workplace hazards relating to CS/LE entries.

3.1.4 **Rescue Organization**

- The individual and/or organization who is properly trained and equipped to carry out a confined space entry rescue operation. Trained rescuer(s) must be on site for IDLH conditions while the work is being performed.

3.1.5 **Entry Supervisor**

- Assess the risks prior to entry and establish the work plan accordingly.
- Notify the HCS Corporation Safety Coordinator prior to entry into a confined space to review the planned activity, circumstances, and Confined Space Permit.

- Verify what conditions exist.
- Verify that all participants (entrants and attendant) are adequately trained for the work that is to be performed.
- Conduct a tailgate training session at the location of the confined space, reviewing all entries in the Permit with all attendants and entrants. Ensure the planned program must include procedures for coordinating entry operations for multi-employers so that employees of one employer do not endanger the employees of any other employer.
- Confirm that the air within the confined space is tested with an appropriated air monitoring instrument.
- Confirm that all air test results are documented on the Permit form.
- Verify that the attendant has the proper retrieval equipment and is trained in confined space rescue. Emergency rescue capability must be established in the permit process and must include emergency contact numbers.
- Confirm that appropriate means of communication are ensured (in place and operable) for the entry team. Communication can be verbal, hand signals, radio, or telephone.
- Confirm that the proper isolation of any process lines, pipes, or electrical systems that can affect the safety or health of entrants in a confined space are isolated and secure—e.g., blanking, blocking, lockout-tagout, and verifying that systems are isolated prior to proceeding with work.
- Verify that fresh airports, manways, and accessways are opened during the entire operation.
- When forcing air into a confined space to facilitate the proper entry condition, ensure that fresh air is continuously forced into the confined space prior to and during work within a permit required confined space. Air will not be exhausted from a space. The objective is that the forced air will be sufficient to maintain a space safe for entry.
- Make sure that appropriate safety equipment is selected and used by all entrants based on the physical and health hazards that may exist.
- Cancel the entry permit at any time based on a change in monitored conditions or perceived hazards.
- Review the Confined Space Entry Permit after completion of the work to evaluate the process.

3.1.6 **Attendant**

- Must always remain outside the confined space. The **attendant** must not leave the post unattended at any time. If the attendant needs to leave his position, **entrants** must be called out of the confined space, or another qualified attendant must take the position and responsibility. A single attendant shall not monitor more than one confined space at any given time.
- Confirm that correct names of all **entrants** are listed on the permit.
- Confirm that all applicable parts of the permit are completed before allowing any HCS Corporation **employee** to enter the space.

- Confirm that all equipment going into the confined space (e.g., tools and protective equipment) is in safe operating condition. It is prohibited for compressed gas bottles (e.g., burning and welding) to be brought into a confined space. All gas lines brought into accessways shall be protected from sharp edges.
- Confirm that all **entrants** have received any special instructions for the work to be performed before entering the space.
- Maintain communication with **entrants** either visually, verbally, or using hand signals or radio.
- Interrupt work and evacuate any/all **entrants** in the event of a newly developed dangerous condition, when signs of entrant stress or fatigue are noticed, or when the **attendant** needs to leave the post and cannot be replaced by another attendant.
- Summon rescue and other services during an emergency.
- Warn any unauthorized persons not to enter a Confined Space.

3.1.7 **Entrants**

- Responsible to know the Emergency Action Plan and be able to recognize the potential for real hazards associated with the Confined Space. Refer to the Permit and ask the **Entry Supervisor** if a question arises.
- Know how to use the identified personal protective equipment (PPE) required for entry or rescue.
- Know how to exit the confined space as rapidly as possible without help whenever:
  - The **attendant** orders an evacuation.
  - Any alarm from a continuous monitor/detector sound.
  - The **entrant(s)** recognizes the warning signs of exposure to hazardous substances that could be found in that confined space, including physical conditions such as fatigue.
- Be aware of the toxic effects or symptoms of the hazardous materials that could be encountered in the confined space.
- Know how to relay an alarm to the outside attendant and to attempt self-rescue immediately upon becoming aware of hazardous conditions.
- Know any modification of normal work practices that are necessary for permit-required confined space work.

3.1.8 **Employees**

- Refrain from making any attempt to enter a confined space without first meeting the requirements of this Procedure and the applicable entry permit and receiving authorization for entry from the entry supervisor.
- Employees or their representatives are entitled to request additional monitoring at any time.
- Avoid areas where other employees are working in confined spaces.

3.2 Confined Spaces

3.2.1 All confined spaces will be considered permit-required by default in the absence of a previous classification by the owner or HCS Corporation competent person.

3.2.2 Labeling/Signage

- All permit-required confined spaces under HCS Corporation control will be labeled so that employees are adequately warned of the potential for hazardous conditions.
- When non-permit-required confined spaces require the implementation of confined space entry procedures because of specific work operations (e.g., painting, welding), all entry points will be labeled or identified by signs to alert all employees of the existence of the hazardous conditions. These labels or signs will be removed only when the hazard no longer exists (e.g., complete curing of the paint).

3.2.3 Classification of Confined Spaces

- For each identified confined space, an evaluation to determine the nature and extent of all possible hazards to entrants must be conducted. Consideration will be given to the following types of hazards:
  - The presence of possible airborne contaminants at concentrations exceeding established occupational exposure limits (OELs / PELs).
  - The presence of any physical hazards (e.g., electrical shock, mechanical injury, etc.).
  - The presence of flammable or explosive conditions.
  - The presence of any potential for rapid flooding or engulfment.
  - Configurations/positioning that may cause an entrant to become trapped.
  - Initial classification as either a PRCS or NPRCS.
- Wherever the confined space is controlled by a client or a third party, the controlling entity must be available to provide the information necessary to complete the evaluation. However, if HCS Corporation personnel are requested to enter a confined space owned or controlled by others, the final evaluation will be with the HCS Corporation employee.
- Non-permit-required confined spaces can be designated by a competent person or the HCS Corporation Safety Coordinator after review of the space(s), historical monitoring data, and other factors (e.g., injuries that have occurred). Therefore, all confined spaces will be considered permit-required unless specifically designated as a non-permit-required space.

3.2.4 PRCS Pre-Entry Procedure

- To protect employees during PRCS entries, HCS Corporation-specific PRCS entry procedures will be developed for each PRCS to be entered. Each entry procedure will specify:
  - The identity of the PRCS(s) to which the procedure applies.
  - The potential hazards associated with the entry operation/PRCS.
  - Pre-entry planning:

  - Required air monitoring equipment and procedures.
  - Required ventilation procedures (as applicable).
  - Required lockout/tagout procedures (as applicable).
  - Required emergency response/extraction equipment.
  - Rescue agency notification requirements (as applicable).
  - Required pre-entry monitoring procedures and applicable at-entry re-classification criteria.
  - PPE requirements during entry.
- Prior to the start of the entry operation, the **Entry Supervisor** will assign individuals on the entry team to the following jobs:
  - **Entrant –** The person entering the PRCS.
  - **Primary Attendant** – The person dedicated only to assisting the entrant, observing the entry operation, and maintaining communications with the entrant throughout the entry procedure.
  - **Secondary Attendant for Rescue Procedures –** An additional employee who is assigned either to specific support of the entry operation or to working nearby can assist with rescue operations in the event of an accident. This person can perform other duties unrelated to observing the entry.
- The **Entry Supervisor** is responsible for ensuring that the individuals assigned to each job fully understand their duties and responsibilities prior to initiating the entry operation. The **Entry Supervisor** will review the complete entry procedure with all team members prior to the work. The **Entry Supervisor** will also verify the availability of locally accessible rescue services.
- Additional requirements for Pre-Entry Planning include the following:
  - Select the appropriate equipment to measure the potential hazards. Select a multi-gas meter capable of measuring oxygen, combustible gas (% LEL), and other hazardous gases.
  - Determine the acceptable values for the hazardous conditions being measured, based on the equipment in use and the field calibration method. The acceptable working levels are determined as follows:
    - Oxygen: 19.5% – 23.5%
    - LEL: <10%
    - Hydrogen sulfide: ≤10 ppm
    - Carbon monoxide: ≤25 ppm
    - Other toxic chemicals: contact the SH&E Department.
  - Ensure that all the equipment selected is calibrated and that calibration is still valid.
- Personnel trained in accordance with this procedure shall perform field verification of equipment as follows:
  - Calibrate combustible gas meters using appropriate span gas for the detectors to be used. (This span gas calibration shall be performed each time the instrument is turned on).
  - Check detector tube pumps for leakage using the manufacturer's procedures.

  - Calibrate photo ionization detectors (PID) using isobutylene or other material in accordance with the manufacturer's directions.
  - Calibrate any other instrumentation to be used in accordance with manufacturer's directions.
  - Set up barricades and signage around the space being entered as required.
  - Set up required fall arrest, retrieval, or rescue systems.
  - Institute required lockout/tagout procedures (i.e., electrical, steam, liquid flow-pipe blanking).
  - Ensure that a second person (trained as entry attendant) is available to assist in the set-up procedures.
  - Agree upon a means of communication between the **entrant** and the **attendant**. (The **attendant** is not authorized to perform rescue involving entry into the space unless he/she is trained for rescue and another entry attendant replaces him/her prior to the attempt to rescue).
  - Verify a means to contact emergency rescue services for further assistance.
  - Complete the Confined Space Entry Permit.
- The **Entry Supervisor** shall also:
  - Have the **attendant** verify the completion of the required actions.
  - Sign the Permit upon verification of completed actions.
  - Maintain the Permit at all authorized entry sites until completion of the entry.

3.2.6 PRCS Entry Permits

- A PRCS Entry Permit is required to be completed for each individual PRCS entry operation. The Permit provides the means for documenting:
  - The identities and roles of all individuals involved in the entry operation.
  - Equipment used for performance of the entry (monitoring instruments, extraction equipment, etc.).
  - Pre-entry and operational monitoring results.
  - Communications protocols between Entrants, Attendants, and rescue services.
  - Lockout/Tagout procedures.
  - PPE for specific tasks (refer to the Task Hazard Analysis for the task).
  - Other relevant workplace conditions or events related to the entry operation (e.g., vault isolation procedures).
- Each Permit will be signed and authorized by the **Entry Supervisor**. At the completion of the entry operation, the Permit will be filed as part of the project records.

3.2.7 PRCS Entry Procedure

- Test the atmosphere around the confined space access door or cover to ensure that no flammable conditions exist prior to the door or cover being removed. Note: Always check for oxygen levels first if the meter does not measure simultaneously. Low oxygen levels can cause LEL readings to be incorrect.
- Don any required PPE.

- Upon removal of the access cover/door, test the immediate atmosphere using remote testing procedures to ensure that the immediate atmosphere is safe. If any of the parameters being tested are outside the acceptable working level, do not enter.
- If necessary, use ventilation equipment to either remove the contaminant(s) or to correct the oxygen-deficient atmosphere.
- If the initial test(s) are within acceptable working levels, slowly enter the space, continually testing the atmosphere in front and to the sides.
- In stratified atmospheres (i.e., vertical entries), test 4 feet in advance of the direction of travel. The entrant's travel speed must allow for adequate instrument response time.
- Test the entire area where work is to be performed prior to performance of any work.
- While performing the work, place the direct read instruments in a location that will not interfere with the work, will allow for continual monitoring, and will enable the entrant to detect alarms that may be activated.

3.2.8 PRCS Exit Procedure

- Remove all equipment.
- Replace all access covers.
- Ensure that all signs are visible and legible.
- Remove all lockout/tagout equipment.
- Note on the Permit any problems encountered while in the space.
- Finish the Permit and turn it in to the **Entry Supervisor.**
- The **Entry Supervisor** will inspect the Permit for completion and will investigate any noted problems. Actions taken to correct noted problems will be discussed with all authorized **entrants** and **attendants** for future implementation.
- The completed Permit will be maintained on file as required in this section.

3.3 NPRCS Entry Procedure

Persons entering this type of space only need to complete a confined space entry permit, to remain vigilant about conditions in the space, to remember that if any condition changes or if hazards are introduced into the space (e.g., welding/cutting operations) the classification and entry procedures in the space may change.

3.3.1 NPRCS Entry Procedure

- When entrance covers are removed, guard the opening to prevent an accidental fall through the opening and to protect each employee working in the space from foreign objects entering the space.
- Check the atmosphere with the gas detector for oxygen, LEL, and other hazardous gases (e.g., Methane, hydrogen sulfide, and carbon monoxide) in the same order prior to entry into the space.
- Record the measured conditions on the permit and do not allow entry if detected levels are above safe working levels.

- Proceed with entry and work with caution.

3.3.2 NPRCS Post Entry Procedures
The following post-entry procedures must be followed after the completion of an NPRCS entry:

- Remove all equipment.
- Replace all access covers.
- Ensure all signs are visible and legible.
- Remove all lockout/tagout equipment, if applicable

3.4 Rescue Services

3.4.1 If the **Entrant** is injured or rendered unconscious and needs assistance to exit the space:

- **Attendant** will operate entrant retrieval system to evacuate personnel within the confined space. If this system fails, they will call for emergency assistance.
- **Once Rescuers arrive, the Rescuers will assume the duties of the Attendant. The Rescuer(s) will enter the space to extricate the downed entrant** and perform first aid services as required.
- The **Attendant** will remain at the confined space and aid the Rescuer(s), if requested.

3.4.2 Facilitating Non-Entry Rescue

- Retrieval systems or methods shall be used whenever an authorized entrant enters a permit space (unless the retrieval equipment would increase the overall risk of entry).
- Retrieval systems shall meet the following requirements:
  - Each authorized **entrant** shall use the proper class of full body harness with a retrieval line attached.
  - The retrieval line shall be attached to a mechanical extraction device (mandatory for more than 5 feet deep rescue) or fixed point outside the permit space.

4.0 Records

4.1 Training Records – All employee training records shall be maintained at the HCS Corporation office.

4.2 *Confined Space Entry Permit* – Will be signed by the entry supervisor and maintained onsite during the confined space entry activity. Once the entry activity is officially closed the entry permit shall be maintained in the project files.

HCS CORPORATION

RESPIRABLE CRYSTALLINE SILICA PROGRAM

PURPOSE

This Respirable Crystalline Silica Program was developed to prevent employee exposure to hazardous levels of Respirable Crystalline Silica that could result through construction activities or nearby construction activities occurring on worksites. Respirable Crystalline Silica exposure at hazardous levels can lead to lung cancer, silicosis, chronic obstructive pulmonary disease, and kidney disease. It is intended to meet the requirements of the Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153) established by the Occupational Safety and Health Administration (OSHA).

All work involving chipping, cutting, drilling, grinding, or similar activities on materials containing Crystalline Silica can lead to the release of respirable-sized particles of Crystalline Silica (i.e., Respirable Crystalline Silica). Crystalline Silica is a basic component of soil, sand, granite, and many other minerals. Quartz is the most common form of Crystalline Silica. Many materials found on constructions sites include Crystalline Silica; including but not limited to – cement, concrete, asphalt, pre-formed structures (inlets, pipe, etc.) and others. Consequently, this program has been developed to address and control these potential exposures to prevent our employees from experiencing the effects of occupational illnesses related to Respirable Crystalline Silica exposure.

SCOPE

This Respirable Crystalline Silica Program applies to all employees who have the potential to be exposed to Respirable Crystalline Silica when covered by the OSHA Standard. The OSHA Respirable Crystalline Silica Construction Standard applies to all occupational exposures to Respirable Crystalline Silica in construction work, except where employee exposure will remain below 25 micrograms of Respirable Crystalline Silica per cubic meter of air (25 $\mu g/m^3$) as an 8-hour time-weighted average (TWA) under any foreseeable conditions.

RESPONSIBILITIES

HCS Corporation firmly believes protecting the health and safety of our employees is everyone's responsibility. This responsibility begins with upper management providing the necessary support to properly implement this program. However, all levels of the organization assume some level of responsibility for this program including the following positions.

HCS Corporation Upper Management:

- Conduct job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments to determine if an employee's exposure will be above 25 $\mu g/m^3$ as an 8-hour TWA under any foreseeable conditions.

- Select and implement into the project's ECP the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1; and potentially including (but not limited to) - a written Exposure Control Plan (ECP), exposure monitoring, Hazard Communication training, medical surveillance, housekeeping, and others.
  NOTE: OSHA's Construction Standard Table 1 is a list of 18 common construction tasks along with acceptable exposure control methods and work practices that limit exposure for those tasks.
- Ensure that the materials, tools, equipment, personal protective equipment (PPE), and other resources (such as worker training) required to fully implement and maintain this Respirable Crystalline Silica Program are in place and readily available if needed.
- Ensure that Project Managers, Superintendents, Competent Persons, and employees are educated in the hazards of Silica exposure and trained to work safely with Silica in accordance with OSHA's Respirable Crystalline Silica Construction Standard and OSHA's Hazard Communication Standard. Superintendents and Competent Persons may receive more advanced training than other employees.
- Maintain written records of training (for example, proper use of respirators), ECPs, inspections (for equipment, PPE, and work methods/practices), medical surveillance (under lock and key), respirator medical clearances (under lock and key) and fit-test results.
- Conduct an annual review (or more often if conditions change) of the effectiveness of this program and any active project ECP's that extend beyond a year. This includes a review of available dust control technologies to ensure these are selected and used when practical.
- Coordinate work with other employers and contractors to ensure a safe work environment relative to Silica exposure.

Project Manager/Superintendents:

- Ensure all applicable elements of this Respirable Crystalline Silica Program are implemented on the project including the selection of a Competent Person.
- Assist Upper Management in conducting job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments to determine if an ECP, exposure monitoring, and medical surveillance is necessary.
- Assist in the selection and implementation of the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1; and potentially including (but not limited to) - a written Exposure Control Plan (ECP), exposure monitoring, Hazard Communication training, medical surveillance, housekeeping, and others.
- Ensure that employees using respirators have been properly trained, medically cleared, and fit-tested in accordance with the company's Respiratory Protection Program. This process will be documented.

- Ensure that work is conducted in a manner that minimizes and adequately controls the risk to workers and others. This includes ensuring that workers use appropriate engineering controls, work practices, and wear the necessary PPE.
- Where there is risk of exposure to Silica dust, verify employees are properly trained on the applicable contents of this program, the project specific ECP, and the applicable OSHA Standards (such as Hazard Communication). Ensure employees are provided appropriate PPE when conducting such work.

Superintendents/Foreman:

- Make frequent and regular inspections of job sites, materials, and equipment to implement the written ECP.
- Identify existing and foreseeable Respirable Crystalline Silica hazards in the workplace and take prompt corrective measures to eliminate or minimize them.
- Notify the Project Manager of any deficiencies identified during inspections to coordinate and facilitate prompt corrective action.
- Assist the Project Manager in conducting job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments to determine if an ECP, exposure monitoring, and medical surveillance is necessary.

Employees:

- Follow recognized work procedures (such as the Construction Tasks identified in OSHA's Construction Standard Table 1) as established in the project's ECP and this program.
- Use the assigned PPE in an effective and safe manner.
- Participate in Respirable Crystalline Silica exposure monitoring and the medical surveillance program.
- Report any unsafe conditions or acts to the Site Manager and/or Competent Person.
- Report any exposure incidents or any signs or symptoms of Silica illness.

DEFINITIONS

If a definition is not listed in this section, please contact your supervisor. If your supervisor is unaware of what the term means, please contact the Competent Person or your Safety Department.

- Action Level means a concentration of airborne Respirable Crystalline Silica of 25 $\mu g/m^3$, calculated as an 8-hour TWA.
- Competent Person means an individual who can identify existing and foreseeable Respirable Crystalline Silica hazards in the workplace and who has authorization to take prompt corrective measures to eliminate or minimize them.
- Employee Exposure means the exposure to airborne Respirable Crystalline Silica that would occur if the employee were not using a respirator.

- High-Efficiency Particulate Air (HEPA) Filter means a filter that is at least 99.97 percent efficient in removing monodispersed particles of 0.3 micrometers in diameter.
- Objective Data means information, such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to Respirable Crystalline Silica associated with a particular product or material or a specific process, task, or activity. The data must reflect workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.
- Permissible Exposure Limit (PEL) means the employer shall ensure that no employee is exposed to an airborne concentration of Respirable Crystalline Silica more than 50 $\mu g/m^3$, calculated as an 8-hour TWA.
- Physician or Other Licensed Health Care Professional (PLHCP) means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide or be delegated the responsibility to provide some or all the health care services required by the Medical Surveillance Section of the OSHA Respirable Crystalline Silica Standard.
- Respirable Crystalline Silica means Quartz, Cristobalite, and/or Tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particle size- selective samplers specified in the International Organization for Standardization (ISO) 7708:1995: Air Quality-Particle Size Fraction Definitions for Health-Related Sampling.
- Specialist means an American Board-Certified Specialist in Pulmonary Disease or an American Board Certified Specialist in Occupational Medicine.

REQUIREMENTS

Specified Exposure Control Methods

When possible and applicable, HCS Corporation will conduct activities with potential Silica exposure to be consistent with OSHA's Construction Standard Table 1. Supervisors will ensure each employee under their supervision and engaged in a task identified on OSHA's Construction Standard Table 1 have fully and properly implemented the engineering controls, work practices, and respiratory protection specified for the task on Table 1 (unless HCS Corporation has assessed and limited the exposure of the employee to Respirable Crystalline Silica in accordance with the Alternative Exposure Control Methods Section of this program).

Table 1: Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
1	Stationary masonry saws	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
2a	Handheld power saws (any blade diameter) when used outdoors	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
2b	Handheld power saws (any blade diameter) when used indoors or in an enclosed area	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
3	Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less) for tasks performed outdoors only	• Use saw equipped with commercially available dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	None	None
4a	Walk-behind saws when used outdoors	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
4b	Walk-behind saws when used indoors or in an enclosed area	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
5	Drivable saws for tasks performed outdoors only	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
6	Rig-mounted core saws or drills	• Use tool equipped with integrated water delivery system that supplies water to cutting surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust	None	None

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
		emissions.		
7	Handheld and stand-mounted drills (including impact and rotary hammer drills)	• Use drill equipped with commercially available shroud or cowling with dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes.	None	None
8	Dowel drilling rigs for concrete for tasks performed outdoors only	• Use shroud around drill bit with a dust collection system. • Dust collector must have a filter with 99% or greater efficiency and a filter cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
9a	Vehicle-mounted drilling rigs for rock and concrete	• Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector.	None	None
9b	Vehicle-mounted drilling rigs for rock and concrete	• Operate from within an enclosed cab and use water for dust suppression on drill bit.	None	None
10a	Jackhammers and handheld powered chipping tools when used outdoors	• Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10b	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	• Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10c	Jackhammers and handheld powered chipping tools when used outdoors	• Use tool equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10d	Jackhammers and handheld powered chipping tools when used indoors or in an	• Use tool equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust	N95 (or Greater Efficiency) Filtering	N95 (or Greater Efficiency) Filtering

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
	enclosed area	emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.	Facepiece or Half Mask	Facepiece or Half Mask
11	Handheld grinders for mortar removal (i.e., tuckpointing)	• Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	Powered Air-Purifying Respirator (PAPR) with P100 Filters
12a	Handheld grinders for uses other than mortar removal for tasks performed outdoors only	• Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
12b	Handheld grinders for uses other than mortar removal when used outdoors	• Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	None	None
12c	Handheld grinders for uses other than mortar removal when used indoors or in an enclosed area	• Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
13a	Walk-behind milling machines and floor grinders	• Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
13b	Walk-behind milling machines and floor grinders	• Use machine equipped with dust collection system recommended by the manufacturer. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust	None	None

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
		emissions. • Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.		
14	Small drivable milling machines (less than half-lane)	• Use a machine equipped with supplemental water sprays designed to suppress dust. • Water must be combined with a surfactant. • Operate and maintain machine to minimize dust emissions.	None	None
15a	Large drivable milling machines (half-lane and larger) for cuts of any depth on asphalt only	• Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions.	None	None
15b	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	• Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions.	None	None
15c	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	• Use a machine equipped with supplemental water spray designed to suppress dust. • Water must be combined with a surfactant. • Operate and maintain machine to minimize dust emissions.	None	None
16	Crushing machines	• Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). • Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. • Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote-control station.	None	None
17a	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	• Operate equipment from within an enclosed cab.	None	None
17b	Heavy equipment and utility vehicles used to abrade or fracture	• When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust	None	None

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
	silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	emissions.		
18a	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	• Apply water and/or dust suppressants as necessary to minimize dust emissions.	None	None
18b	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	• When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None	None

When implementing the control measures specified in Table 1, HCS Corporation shall:

- For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust.
- For tasks performed using wet methods, apply water at flow rates sufficient to minimize release of visible dust.
- For measures implemented that include an enclosed cab or booth, ensure that the enclosed cab or booth:
  - Is maintained as free as practicable from settled dust.
  - Has door seals and closing mechanisms that work properly.
  - Has gaskets and seals that are in good condition and working properly.
  - Is under positive pressure maintained through continuous delivery of fresh air.
  - Has intake air that is filtered through a filter that is 95% efficient in the 0.3-10.0 μm range (e.g., MERV-16 or better).
  - Has heating and cooling capabilities.
- Where an employee performs more than one task included on OSHA's Construction Standard Table 1 during a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks on Table 1

combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

Alternative Exposure Control Methods

Alternative Exposure Control Methods apply for tasks not listed in OSHA's Construction Standard Table 1, or where HCS Corporation cannot fully and properly implement the engineering controls, work practices, and respiratory protection described in Table 1.

First, HCS Corporation will assess the exposure of each employee who is or may reasonably be expected to be exposed to Respirable Crystalline Silica at or above the Action Level in accordance with either the Performance Option or the Scheduled Monitoring Option.

- **Performance Option** – HCS Corporation will assess the 8-hour TWA exposure for each employee based on any combination of air monitoring data or objective data sufficient to accurately characterize employee exposures to Respirable Crystalline Silica.
- **Scheduled Monitoring Option:**
  - HCS Corporation will perform initial monitoring to assess the 8-hour TWA exposure for each employee based on one or more personal breathing zone air samples that reflect the exposures of employees on each shift, for each job classification, and in each work area. Where several employees perform the same tasks on the same shift and in the same work area, HCS Corporation will plan to monitor a representative fraction of these employees. When using representative monitoring, HCS Corporation will sample the employee(s) who are expected to have the highest exposure to Respirable Crystalline Silica.
  - If initial monitoring indicates that employee exposures are below the Action Level, HCS Corporation will probably discontinue monitoring for those employees whose exposures are represented by such monitoring.
  - Where the most recent exposure monitoring indicates that employee exposures are at or above the Action Level but at or below the PEL, HCS Corporation will repeat such monitoring within six months of the most recent monitoring.
  - Where the most recent exposure monitoring indicates that employee exposures are above the PEL, HCS Corporation will repeat such monitoring within three months of the most recent monitoring.
  - Where the most recent (non-initial) exposure monitoring indicates that employee exposures are below the Action Level, HCS Corporation will repeat such monitoring within six months of the most recent monitoring until two consecutive measurements, taken seven or more days apart, are below the Action Level, at which time HCS Corporation will probably discontinue monitoring for those employees whose exposures are represented by such monitoring, except when a reassessment is required. HCS Corporation will reassess exposures whenever a change in the production, process, control equipment, personnel, or work practices may reasonably be expected to result in new or additional exposures at or above the Action Level, or

when HCS Corporation has any reason to believe that new or additional exposures at or above the Action Level have occurred.

HCS Corporation will ensure that all Respirable Crystalline Silica samples taken to satisfy the monitoring requirements of this program and OSHA are collected by a qualified individual (i.e. a Certified Industrial Hygienist) and the samples are evaluated by a qualified laboratory (i.e. accredited to ANS/ISO/IEC Standard 17025:2005 with respect to Crystalline Silica analyses by a body that is compliant with ISO/IEC Standard 17011:2004 for implementation of quality assessment programs).

Within five working days after completing an exposure assessment, HCS Corporation will individually notify each affected employee in writing of the results of that assessment or post the results in an appropriate location accessible to all affected employees.

Whenever an exposure assessment indicates that employee exposure is above the PEL, HCS Corporation will describe in the written notification the corrective action being taken to reduce employee exposure to or below the PEL.

Where air monitoring is performed, HCS Corporation will provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to Respirable Crystalline Silica. When observation of monitoring requires entry into an area where the use of protective clothing or equipment is required for any workplace hazard, HCS Corporation will provide the observer with protective clothing and equipment at no cost and shall ensure that the observer uses such clothing and equipment.

Once air monitoring has been performed, HCS Corporation will determine its method of compliance based on the monitoring data and the hierarchy of controls. HCS Corporation will use engineering and work practice controls to reduce and maintain employee exposure to Respirable Crystalline Silica to or below the PEL, unless HCS Corporation can demonstrate that such controls are not feasible. Wherever such feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the PEL, HCS Corporation will nonetheless use them to reduce employee exposure to the lowest feasible level and shall supplement them with the use of respiratory protection.

In addition to the requirements of this program, HCS Corporation will comply with other programs and OSHA standards (such as 29 CFR 1926.57 [Ventilation]), when applicable where abrasive blasting is conducted using Crystalline Silica-containing blasting agents, or where abrasive blasting is conducted on substrates that contain Crystalline Silica.

Control Methods

HCS Corporation will provide control methods that are either consistent with Table 1 or otherwise minimize worker exposures to Silica. These exposure control methods can include engineering controls, work practices, and respiratory protection. Listed below are control methods to be used when Table 1 is not followed:

Respiratory Protection

Where respiratory protection is required by this program, HCS Corporation will provide each employee an appropriate respirator that complies with the requirements of the company's Respiratory Protection Program and the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Respiratory protection is required where specified by the OSHA Construction Standard Table 1, for tasks not listed in Table 1, or where the company has not fully and properly implemented the engineering controls, work practices, and respiratory protection described in Table 1. Situations requiring respiratory protection include:

- Where exposures exceed the PEL during periods necessary to install or implement feasible engineering and work practice controls.
- Where exposures exceed the PEL during tasks, such as certain maintenance and repair tasks, for which engineering, and work practice controls are not feasible.
- During tasks for which an employer has implemented all feasible engineering and work practice controls and such controls are not sufficient to reduce exposures to or below the PEL.

Housekeeping

HCS Corporation does not allow dry sweeping or dry brushing where such activity could contribute to employee exposure to Respirable Crystalline Silica unless wet sweeping, HEPA-filtered vacuuming, or other methods that minimize the likelihood of exposure are not feasible.

HCS Corporation does not allow compressed air to be used to clean clothing or surfaces where such activity could contribute to employee exposure to Respirable Crystalline Silica unless:

- The compressed air is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air; or
- No alternative method is feasible.

Written Exposure Control Plan

When employee exposure on a construction project is expected to be at or above the Action Level, a Written Exposure Control Plan (ECP) will be established and implemented. This ECP will contain at least the following elements:

- A description of the tasks in the workplace that involve exposure to Respirable Crystalline Silica.
- A description of the engineering controls, work practices, and respiratory protection used to limit employee exposure to Respirable Crystalline Silica for each task.
- A description of the housekeeping measures used to limit employee exposure to Respirable Crystalline Silica; and
- A description of the procedures used to restrict access to work areas, when necessary, to minimize the number of employees exposed to Respirable Crystalline Silica and their level of exposure, including exposures generated by other employers or sole proprietors.

The written ECP will designate a Competent Person to make frequent and regular inspections of jobsites, materials, and equipment to ensure the ECP is implemented.

The written ECP will be reviewed at least annually to evaluate the effectiveness of it and update it as necessary. Having said this, ECP's are project specific, and most project durations do not exceed a year. The written ECP will be readily available for examination and copying, upon request, to each employee covered by this program and/or ECP, their designated representatives, and OSHA.

Medical Surveillance

Medical surveillance will be made available for each employee who will be required to use a respirator for 30 or more days per year due to their Respirable Crystalline Silica exposure. Medical surveillance (i.e., medical examinations and procedures) will be performed by a PLHCP and provided at no cost to the employee at a reasonable time and place.

HCS Corporation will make available an initial (baseline) medical examination within 30 days after initial assignment, unless the employee has received a medical examination that meets the requirements of the OSHA Respirable Crystalline Silica Construction Standard within the last three years. The examination shall consist of:

- A medical and work history, with emphasis on past, present, and anticipated exposure to Respirable Crystalline Silica, dust, and other agents affecting the respiratory system in addition to any history of respiratory system dysfunction, including signs and symptoms

of respiratory disease (e.g., shortness of breath, cough, wheezing), history of tuberculosis, and smoking status and history.
- A physical examination with special emphasis on the respiratory system.
- A chest X-ray (a single postero-anterior radiographic projection or radiograph of the chest at full inspiration recorded on either film [no less than 14 x 17 inches and no more than 16 x 17 inches] or digital radiography systems) interpreted and classified according to the International Labour Office (ILO) International Classification of Radiographs of Pneumoconiosis by a NIOSH-certified B Reader.
- A pulmonary function test to include forced vital capacity (FVC) and forced expiratory volume in one second (FEV1) and FEV1/FVC ratio, administered by a spirometry technician with a current certificate from a NIOSH-approved spirometry course.
- Testing for latent tuberculosis infection; and
- Any other tests deemed appropriate by the PLHCP.

HCS Corporation will make available medical examinations that include the procedures (except testing for latent tuberculosis infection) at least every three years. If recommended by the PLHCP, periodic examinations can be more frequently than every three years.

HCS Corporation will ensure that the examining PLHCP has a copy of the OSHA Respirable Crystalline Silica Construction Standard, this program, and the following information:
- A description of the employee's former, current, and anticipated duties as they relate to the employee's occupational exposure to Respirable Crystalline Silica.
- The employee's former, current, and anticipated levels of occupational exposure to Respirable Crystalline Silica.
- A description of any personal protective equipment (PPE) used or to be used by the employee, including when and for how long the employee has used or will use that equipment; and
- Information from records of employment-related medical examinations previously provided to the employee and currently within the control of HCS Corporation.

HCS Corporation will ensure that the PLHCP explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of each medical examination performed. The written report shall contain:
- A statement indicating the results of the medical examination, including any medical condition(s) that would place the employee at increased risk of material impairment to health from exposure to Respirable Crystalline Silica and any medical conditions that require further evaluation or treatment.
- Any recommended limitations on the employee's use of respirators.
- Any recommended limitations on the employee's exposure to Respirable Crystalline Silica; and

- A statement that the employee should be examined by a Specialist if the chest X-ray is classified as 1/0 or higher by the B Reader, or if referral to a Specialist is otherwise deemed appropriate by the PLHCP.

HCS Corporation will also obtain a written medical opinion from the PLHCP within 30 days of the medical examination. The written opinion shall contain only the following to protect the employee's privacy:

- The date of the examination.
- A statement that the examination has met the requirements of the OSHA Respirable Crystalline Silica Construction Standard; and
- Any recommended limitations on the employee's use of respirators.

If the employee provides written authorization, the written opinion shall also contain either or both of the following:

- Any recommended limitations on the employee's exposure to Respirable Crystalline Silica; and/or
- A statement that the employee should be examined by a Specialist if the chest X-ray is classified as 1/0 or higher by the B Reader, or if referral to a Specialist is otherwise deemed appropriate by the PLHCP.

If the PLHCP's written medical opinion indicates that an employee should be examined by a Specialist, HCS Corporation will make available a medical examination by a Specialist within 30 days after receiving the PLHCP's written opinion. HCS Corporation will ensure that the examining Specialist is provided with all the information that the employer is obligated to provide to the PLHCP.

HCS Corporation will ensure that the Specialist explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of the examination. The written report will contain:

- A statement indicating the results of the medical examination, including any medical condition(s) that would place the employee at increased risk of material impairment to health from exposure to Respirable Crystalline Silica and any medical conditions that require further evaluation or treatment.
- Any recommended limitations on the employee's use of respirators; and
- Any recommended limitations on the employee's exposure to respirable crystalline Silica.

In addition, HCS Corporation will obtain a written opinion from the Specialist within 30 days of the medical examination. The written opinion shall contain the following:

- The date of the examination.
- Any recommended limitations on the employee's use of respirators; and

- If the employee provides written authorization, the written opinion shall also contain any recommended limitations on the employee's exposure to Respirable Crystalline Silica.

Hazard Communication

HCS Corporation will include Respirable Crystalline Silica in the company's Hazard Communication Program established to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HCS Corporation will ensure that each employee has access to labels on containers of Crystalline Silica and those containers respective Safety Data Sheets (SDS's).

All employees will be trained in accordance with the provisions of the OSHA Hazard Communication Standard and the Training Section of this program. This training will cover concerns relating to cancer, lung effects, immune system effects, and kidney effects.

HCS Corporation will ensure that each employee with the potential to be exposed at or above the Action Level for Respirable Crystalline Silica can demonstrate knowledge and understanding of at least the following:

- The health hazards associated with exposure to Respirable Crystalline Silica.
- Specific tasks in the workplace that could result in exposure to Respirable Crystalline Silica.
- Specific measures HCS Corporation has implemented to protect employees from exposure to Respirable Crystalline Silica, including engineering controls, work practices, and respirators to be used.
- The contents of the OSHA Respirable Crystalline Silica Construction Standard.
- The identity of the Competent Person designated by HCS Corporation; and
- The purpose and a description of the company's Medical Surveillance Program.

HCS Corporation will make a copy of the OSHA Respirable Crystalline Silica Construction Standard readily available without cost to any employee who requests it.

Recordkeeping

HCS Corporation will make and maintain an accurate record of all exposure measurements taken to assess employee exposure to Respirable Crystalline Silica. This record will include at least the following information:

- The date of measurement for each sample taken.
- The task monitored.
- Sampling and analytical methods used.
- Number, duration, and results of samples taken.
- Identity of the laboratory that performed the analysis.

- Type of personal protective equipment (PPE), such as respirators, worn by the employees monitored; and
- Name, social security number, and job classification of all employees represented by the monitoring, indicating which employees were monitored.

HCS Corporation will ensure that exposure records are maintained and made available in accordance with 29 CFR 1910.1020. Exposure records will be kept for at least 30 years.

The employer shall make and maintain an accurate record of all objective data relied upon to comply with the requirements of the OSHA Respirable Crystalline Silica Construction Standard. This record shall include at least the following information:

- The Crystalline Silica-containing material in question.
- The source of the objective data.
- The testing protocol and results of testing.
- A description of the process, task, or activity on which the objective data were based; and
- Other data relevant to the process, task, activity, material, or exposures on which the objective data were based.

HCS Corporation will ensure that objective data are maintained and made available in accordance with 29 CFR 1910.1020. Objective data records will be kept for at least 30 years.

HCS Corporation will make and maintain an accurate record for each employee enrolled in the Medical Surveillance portion of this program. The record shall include the following information about the employee:

- Name and social security number.
- A copy of the PLHCPs' and/or Specialists' written medical opinions; and
- A copy of the information provided to the PLHCPs and Specialists.

HCS Corporation will ensure that medical records are maintained and made available in accordance with 29 CFR 1910.1020. Medical records will be kept under lock and key for at least the duration of employment plus 30 years. It is necessary to keep these records for extended periods because Silica-related diseases such as cancer often cannot be detected until several decades after exposure. However, if an employee works for an employer for less than one year, the employer does not have to keep the medical records after employment ends, as long as the employer gives those records to the employee.

PROGRAM EVALUATION

This program will be reviewed and evaluated on an annual basis by First Link Safety unless changes to operations, the OSHA Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153), or another applicable OSHA Standard require an immediate re-validation of this program.

HCS CORPORATION

CELL PHONE POLICY

It is important to maintain a professional and safe environment for all employees. The use of cell phones while working with ladders, tools, and heavy equipment is unsafe and distracting. Personal cell phone use will be restricted to break and lunch time. Keep your cell phone in your lunch box or your vehicle. Should any family emergencies arise, inform your family that they may contact the HCS Corporation office to relay the message to you. Supervisors have been issued company cell phones and the message will be relayed to you. Encourage family to contact you through the office in the event of emergencies. Only emergencies will be relayed to your supervisor. All other issues need to be directed to your personal cell phone and you can take care of these things during your break. If your supervisor feels that personal cell phones are a problem at the job, they may request you to leave your cell at home. Violating this policy could result in a written warning and/or termination.

HCS CORPORATION

ALCOHOL AND DRUG ABUSE POLICY

In striving to maintain a safe, healthful, and productive work environment HCS Corporation recognizes that it is not immune from the nationwide societal problem of alcohol and drug abuse. To limit the impact of alcohol and drug abuse on the company's workplace and employees, HCS Corporation has adopted this Alcohol and Drug Abuse Policy

HCS Corporation prohibits and will take disciplinary action up to and including discharge for the following:

1. The unauthorized use, possession, manufacturing, distribution, dispensation or sale of alcohol, drugs, or drug paraphernalia on company premises, in company-supplied vehicles, or in any location while on company business. For the purpose of the Policy, "drugs" include marijuana, cocaine, opiates, PCP, amphetamines and any other controlled substances. Unauthorized possession includes possession on an employee's person, as well as storage in a locker, desk, company or personal vehicle, or any other repository on company premises or while on company business.

2. Performing any job duties under the influence of alcohol or drugs on company premises, in company-supplied vehicles, or in any location while on company business. An employee will be considered "under the influence" of alcohol or drugs if he or she exhibits recognizable symptoms of alcohol or drug abuse, including, but not limited to, slurred or inappropriate speech, dazed appearance, uneven gait, altered attention span, other symptoms, or tests positive for the presence of alcohol or drugs.

3. The possession, use, manufacturing, distribution, dispensation or sale of alcohol or drugs off company premises that may adversely affect the individual's work performance, his or her own or other's safety at work or the company's reputation in the community.

4. Refusal or failure to follow reasonable instructions issued by a supervisor implementing this, Policy.

Disciplinary action may also be imposed for the following:

1. Conviction under any criminal drug statute for a violation occurring in the workplace or in another location while on company business.
2. Conviction under any criminal drug statute under circumstances which adversely affect the company's reputation in the community.

3. Failure to notify the company of any conviction under any criminal drug statute within five days of the conviction.

Testing Policy

In connection with this policy, HCS Corporation has instituted a program to identify employees whose alcohol and drug abuse problems may affect the workplace and to prevent new employees from bringing their substance abuse problems to the workplace.

For-Cause Testing

Whenever a supervisor believes that an employee's performance or workplace behavior may have been affected in any manner by alcohol or drug abuse, HCS Corporation may require that the employee submit a urine sample for drug testing and/or a breath or blood sample for alcohol testing. Any employee who tests positive will be considered in violation of this policy and may face discipline up to and including immediate termination.

HCS Corporation will utilize one or more certified alcohol or drug testing laboratories and collections sites to assure accurate and reliable results. At the applicant/employee's request and expense, a positive drug test result may be validated by retesting, at the same laboratory or a second testing laboratory, using the same sample.

Post-Accident Testing

Any employee who is involved in a work-related accident (as defined below) will be tested for the use of illegal drugs and alcohol as soon as possible after the accident.

Examples of an accident that will require an employee to take a drug and alcohol test include, but are not limited to, accidents that involve an employee and result in:

1. The death of a person.
2. Bodily injury to another person who requires medical treatment away from the scene of the accident.
3. An injury to the employee that may result in that employee filing a worker’s compensation claim and whose lost time will likely exceed one working day; or,
4. Damage to property owned by the company or a third party that may reasonably be estimated to exceed $500.

An employee who is seriously injured and cannot provide a specimen for testing will be required to authorize the release of relevant hospital reports or other documentation that would indicate whether there were drugs or alcohol in their system at the time of the accident.

If it is determined by management that an employee’s injury was caused by an unsafe condition and that there was no unsafe act by the injured employee, the company reserves

the right to waive post accident testing under these circumstances.

Employees who are involved in a work-related accident requiring medical attention are to inform their supervisor of the accident as soon as possible so that any needed drug or alcohol test may be promptly conducted in conjunction with their medical treatment.

Policy on Use of Prescription Drugs

Employees may possess and take medication prescribed for them by a licensed physician in accordance with the prescription. However, an employee taking any medication which may impair his or her physical or mental ability at work must report this fact to HCS Corporation, which, in its sole discretion, will determine whether and for how long the employee's job assignment should be changed. Employees should keep all prescribed medicine in its original container which is labeled with drug identity, date of prescription and name of doctor. Improper use of medication obtained through a prescription is a violation of this policy.

Search Policy

1. To enforce the prohibition against illegal activity on company premises, HCS Corporation retains the right to inspect, without prior notice including the employee's work area, desk, toolbox, locker, HCS Corporation vehicle, or other company property in the custody or control of the employee, as well as the employee's personal effects on company property, including personal vehicles. In addition, the company has the right to restrict or deny any employee access to any part of the company's premises at any time, without prior notice. Refusal to permit an inspection is a violation of this Policy and may result in discipline up to and including termination.

OSHA 1926 Standards (Construction)