VECTOR
CONSTRUCTION CORPORATION
GENERAL CONTRACTORS

COMPANY HEALTH AND SAFETY PLAN AND POLICIES

Approved: _____ Richard Anderson, President (cell 315-657-2900)

_____ Bill Anderson, Vice President and Safety Director (cell 315-427-7378)

Revised 1/2018

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Company Health and Safety Philosophy

Vector Construction Corporation (VCC) is committed to maintaining the health and safety of our employees. It is the responsibility of management and everyone employed by the Company to ensure that the proper health and safety rules and regulations established by OSHA, as well as policies established by VCC, are followed.

Each employee has a moral obligation to themselves, their family, their fellow workers and their company to perform their duties in a safe and efficient manner. By improving safety awareness by all, we work towards our common goal to minimize and/or eliminate accidents by safely dealing with the potential hazards that exist on our jobsites. Subcontractors, suppliers and other visitors to our construction sites will be required to follow the same standards VCC employees are required to follow.

Cooperation between management and field operations is mandatory and essential to the success of VCC. All employees are required to work and act in a professional and safe manner.

The purpose of the Policies and Procedures included in this Plan is to ensure that VCC can continue to operate with a safe, professional and productive work force.

Sincerely,
Richard P. Anderson, President

Construction Management Employees and Titles

Richard P. Anderson	**President, Construction Manager**
Bill Anderson	**Vice President, Safety Director, Construction Manager**
Thomas Anderson	**Treasurer, Construction Manager, Corporate EEO Officer**
Diane Steelsmith	**Controller, Office Manager**
Peggy Carman	**Assistant Office Manager**
Eric Sears	**Equipment and Shop Superintendent**
Don Ballard	**Project Superintendent**
Scott Cunningham	**Project Superintendent**
Tim Potter	**Project Superintendent**
Scott Rosa	**Project Superintendent**
Don Warner	**Project Superintendent**
Larry Warner	**Project Superintendent**
Scott Warner	**Project Superintendent**
Tim Zeeuw	**Project Superintendent**

Responsibilities

VCC Management

Management of VCC is responsible for fostering a corporate environment that is conducive to compliance with health and safety (H & S) program standards, rules, regulations and directives. Commitment for the H & S programs and policies must start at top management. VCC management is responsible for:

- Advise all supervisory personnel of the company health and safety requirements that must be followed and maintained at all times.
- Issue to each employee a copy of the programs, standards and policies contained in the company H & S Plan.
- Provide for and issue personal protective equipment and safety devices to be used by VCC employees.
- Advise all personnel of the disciplinary actions that may occur when there is failure to comply with safety procedures. THIS MAY INCLUDE DISMISSAL!
- Advise all personnel that ALL accidents or incidents, no matter how minor, must be reported to the Project Superintendent and Safety Director.
- Establish Job Specific Safety Plans (JSSP) and Procedures for all projects to ensure compliance of the Company H & S. The JSSP will be developed by the Construction Manager with consultation from the Safety Director when required.
- Periodically review policies and procedures to determine if any changes or updates are required.

Safety Director

The Safety Director at VCC is responsible for promoting and ensuring that jobsite safety is the number one priority on all VCC jobsites. More specific responsibilities are:

- Develop and maintain the Company H & S Plan.
- Enforce safe practices and regulations.
- Assist as needed in the development of the Job Specific Safety Plans.
- Monitor company safety practices.

Safety Director (continued)

- Review safety inspections and audits with project manager and project superintendent and address any deficiencies. Assist in development of any changes or corrections if required. Ensure deficiencies are corrected immediately.
- Communicate with Corporate Management, Project Management and Project Superintendents on matters pertaining to jobsite safety and accident prevention.
- Conduct accident investigations, perform root cause analysis, and develop methods with Job Superintendents on how to eliminate future occurrences.
- Provide relevant, weekly tool box talk topics to be used as refresher training on the jobsites.
- Make sure Health and Safety information is readily available to all.
- Serve as liaison with federal, state, local and private agencies on matters pertaining construction safety and industrial hygiene.
- Provide employees and emergency medical personal access to records.
- Prepare, review and approve any reports required by the customer, OSHA or any other Regulatory agency.

Project Superintendent/On Site Competent person

Project Superintendent must build safety into their daily activities. They are front line representatives of the company. They set the example for all personnel on the jobsite. The Health and Safety of all of the employees on the jobsite must be their primary concern. More specific responsibilities are:

- Understanding the requirements of OSHA and other regulations that apply to our jobsites.
- Enforce all safety rules and regulations at the jobsite
- Ensure all Subcontractors and suppliers on their jobsite are practicing safe work habits. The Superintendent has the authority to shut a job down if Safe work practices are not occurring. The Superintendent must notify the Safety Director if a subcontractor or supplier has been directed to stop.
- Conduct weekly tool box talks discussing jobsite hazards and preventative measures that are necessary to eliminate the hazards. Topics will be supplied by VCC, or, the Superintendent can choose a topic relevant to work being done at the time.
- Convey old and new information to employees in regards to safety and health. Make sure all plans and policies are readily available on the jobsite.

Project Superintendent/On Site Competent person

- Make available to all personnel proper Personal Protective Equipment (PPE) necessary to perform their job safely.
- Maintain a clean and neat worksite.
- Continually observe and inspect jobsite for hazards that need to be corrected ASAP. Monitor employee's safety and work practices. Correct any deficiencies ASAP.
- Ensure all equipment on their jobsite is operating properly and all required safety devices are in place.
- Report ALL injuries and accidents to Safety Director.
- Act as a liaison between employees and VCC management.

Employees

Each employee has the responsibility to himself, family, fellow coworkers and VCC to conduct their jobs in a safe, conscientious and efficient manner. More specific responsibilities are:

- Comply with all rules including VCC safety policies and OSHA safety regulations.
- Read and understand company safety policies and initiatives and be willing to comply. Employees will be asked to acknowledge these policies.
- Use personal protective equipment as it is designed to be used. Maintain and care for equipment. Inspect equipment daily for deficiencies. Contact Supervisor if equipment needs to be repaired or replaced.
- Report all accidents, incidents or unsafe acts or conditions to Supervisor or Safety Director immediately.
- If employee has a question regarding safety, safety policies, personal protective equipment etc…, Ask Supervisor or Safety Director immediately.
- Communicate and work safely with all employees.
- Maintain good housekeeping.
- Report to work in good mental & physical condition.
- Maintain a Drug Free and Alcohol free work environment.
- Understand that refusal to comply with Company Policies and Procedures may result in immediate dismissal.

Subcontractors

Subcontractors, by written contract, will be required to follow all OSHA, State and local regulations. Subcontractors will be required to either adopt VCC's Safety Plan or provide the owner and VCC a copy of their written Health and Safety Plan. VCC's Project Superintendent shall monitor subcontractors and notify the Safety Director immediately of any unsafe acts or conditions related to the subcontractors work. The Project Superintendent has the authority to ask the subcontractor stop work immediately in the event that there is an obvious disregard for project safety.

Safety Training

Some projects may require specific training for specific work tasks. This training will be performed by a designated competent company employee or by an outside consultant. Other methods of training are as follows:

- For new hires, the Supervisor will designate a more senior employee to work with the new employee to help familiarize the new employee to VCC's operations. This orientation period can vary in duration depending on the difficulty of the project work tasks along with the ability of the new hire. The goal is to help the new employee be comfortable with the work tasks and environment they are working in.
- All field employees must have the OSHA 10 hr training, along with proof of receiving this training.
- Periodic safety meetings may take place where the company brings in a Safety Expert in a specific field to perform focused training on areas deemed necessary by the Safety Director, Project Manager or Project Superintendent.
- Tool Box talks will be held weekly at all jobsites. The topics will be provided by the Safety director in weekly envelopes. The Project Superintendent has the authority to change the weekly topic if they have a more project specific topic they wish to cover. Safety should be the only topic of these talks. All tool box talks will be documented and a history will be kept at the main office.
- Focused topics will include but not limited to, fall protection, hazard communication, hearing protection, PPE, respiratory protection etc….
- VCC has an open door policy. Any employee who has a question or concern regarding any work related issue should not hesitate to contact their Superintendent, Project Manager or any other VCC management personnel.

Accident/Incident Investigation

The purpose of an accident/incident investigation is to discover the cause or causes of an event so that proper action may be taken to prevent a recurrence. Every time an accident or incident occurs it proves that certain preventative measures were overlooked.

A good investigation will:

- Assist in determining the principal underlying cause of the loss or accident.
- Allow the company to initiate corrective action.
- Aid in furnishing essential data for any reporting requirements.

Investigation Procedure

- Investigation should be carried out by the Project Superintendent, Project Manager or the Safety Director or any combination thereof.
- When an accident occurs, immediately take all necessary steps to prevent further injury or damage.
- Interview those involved or any witnesses as soon as after the accident as feasible. Maintain a fact finding approach-do not attempt to place blame.
- Interview each person promptly and separately.
- Do not say anything that can be taken as blaming or threatening.
- Be professional and assure everyone their contribution is necessary.
- Ask for specific facts first. Opinions can come later.
- Wait until a person is done explaining before writing it down. Check your understanding of what each person said. Discuss with everyone how to properly prevent a recurrence.
- Inspect the location, equipment and material involved. Take pictures if necessary.
- Review information and determine the root cause of the accident.
- Establish corrective actions which should permanently control the cause of the accident. Temporary measure may be required until permanent actions can be implemented.
- Communicate to other jobsites the details of the accident along with the corrective actions the company is taking to prevent a recurrence.
- Retain all reports or notes regarding the accident or incident.
- See **Supervisors Accident Investigation Report.**

SUPERVISOR ACCIDENT INVESTIGATION REPORT

This form is to be used for reporting to the management and to the safety committee. It does not take the place of the regular accident report to the insurance company or any legal form required. To prevent accidents, it is necessary to know how and why they occur. That is why you are asked to fill out this report completely.

Name of injured:_____ Age:_____ Sex: _____

Job Location: _____

Occupation: _____ Date // Time of Accident: _____

Was the individual doing his/her regular work? ❒ Yes ❒ No

Was he/she instructed regarding hazards of the job? ❒ Yes ❒ No

Witness(es) to the accident: _____

Where did the accident occur? _____

Describe the injury: _____

Describe the accident in detail: _____

_____

Was medical treatment necessary? ❒ First Aid ❒ Doctor ❒ Hospital ❒ None

If so, please list the doctor's name, hospital name, date/time of treatment: _____

_____

What unsafe act by the injured or any other person caused or contributed to the cause of the accident?

_____

What should be done to prevent a similar accident? _____

_____

Date corrective action was taken: _____

Is this a lost time accident? ❒ Yes ❒ No If yes, number of days lost:_____

Has the employee returned to work? ❒ Yes ❒ No

Do you desire assistance from the Committee to help determine a remedy to prevent a similar accident:

❒ Yes ❒ No

_____ _____

Supervisor or Foreman Date

Accident/Incident Reporting

The following procedures establish guidelines under which accidents and incidents resulting in personal injury on the job, near miss accidents, property damage or environmental consequences are to be reported.

- Job Site Superintendent has the primary responsibility for reporting accidents and incidents to VCC management. However, the first responsibility in any accident is to insure prompt and proper care to anyone injured and to secure the site to prevent any recurrence.
- Reports must be filled out completely and turned in to the Safety Director. The Superintendent should verbally notify Safety Director of the accident or incident within 24hrs.
- Report forms will be reviewed by the Safety Director. The Safety Director and Job Site Superintendent will determine corrective action necessary to prevent a recurrence.
- All accidents and incidents need to be documented and reported no matter how small. It is important to collect initial information in the event something in the future develops that may have been overlooked.
- The Safety Director will determine which reports need to be sent on to VCC's insurance carriers.
- The Safety Director will review all accidents and any recordable accidents will be recorded on the OSHA 300A log and will be posted at VCC's main office at 6364 Island Road, Cicero NY from February 1 thru April 30 of each year.

General Information

Job Control

For each project, a Job Specific Safety Plan will be developed which will highlight potential hazards related to the specific project. The Company Safety Program will be the basis of this plan with specific references made to standards and procedures most applicable to that project.

This plan will be developed by the Project Manager and Superintendent with the help of the Safety Director. The Superintendent will enforce this plan and require his/her workers to comply with all safety rules and regulations. The Superintendent will not permit any of his/her workers to take unnecessary chances that may put themselves or others working around them in danger.

All Subcontractors on the project are absolutely required to follow and enforce safety rules and regulations applicable. It is the Superintendents responsibility to notify the Subcontractors' on site supervisor that unsafe behavior or conditions will not be tolerated. If the Subcontractor refuses to cooperate, the Superintendent may ask them to temporarily leave the job site until the Subcontractor can ensure that safe work procedures will be used.

Job Site Safety Inspections

Random or scheduled formal Job Site inspections will occur on each job throughout the course of the construction season. The inspections will be conducted by the job superintendent, the project manager or the company safety director. On occasion, the safety director may employ an outside safety specialist to assist in the inspection. The purpose of inspections is to identify any potential hazards that may exist and need to be addressed. The inspections will be documented and corrective action will be taken immediately if required. Certain jobs may receive more inspections that others due to size, number of workers, project complexity etc…

The superintendent shall perform daily visual inspections of the project site. These inspections should be on going throughout the day. Any corrective action must be addressed immediately. These are informal inspections and do not require documentation.

The project manager shall perform visual inspections whenever he/she visits the site. These inspections should be second nature and automatic. Any corrective actions that develop from these inspections should be documented.

Emergency Phone Numbers

All job sites will have emergency phone numbers available including:

Police
Fire Department
Hospital
Vector Construction Corp. Main Office
Project Superintendent

In most cases, Vector Construction Projects are located in 911 areas and areas that have reasonable cell phone coverage.

For extreme cases in rural areas, it may be necessary to have a more detailed plan for EMS personnel contact. In such cases the safety director and superintendent will develop the procedure.

First Aid Supplies

- First Aid supplies will be readily available at job site for self-administration. It will be the job superintendent's responsibility to keep the supplies current and available.
- The First Aid kit on site is primarily available for minor scrapes or cuts. Any injury to an eye should be looked at by a medical provider immediately.
- The superintendent will direct employee where to go for additional medical care if necessary. Telephone numbers for medical services will be readily available at the job site.

How to Handle An OSHA Inspection

- Ask Inspector to provide you with his/hers credentials (i.e. Name, Phone number, Office location.)
- Ask what triggered the inspection?? Is it routine?? An employee complaint?? A civilian complaint?? etc.
- Accompany the OSHA representative when he/she walks around the Job Site.
- Correct any violations immediately.
- Do not disclose any information that they do not specifically ask for.
- The Superintendent may ask the OSHA inspector to halt his/her inspection to allow reasonable time for the Company Safety Director to get to the Job Site.

General Company Safety Rules Guide
(most common to our projects)

Abrasive Grinding

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

Access

Use only safe means of access to and from work areas. Jumping from or to work areas is not allowed, nor is sliding down cables, ropes or guys. Unsafe shortcuts result in slips, trips and falls. All employees shall assist in maintaining good housekeeping keeping access routes clear of obstructions.

Air Tools

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

Attitude

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

Compressed Air, Use of

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

Compressed Gas Cylinders

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

Compressed gas cylinders will be secured in an upright position at all times. Keep cylinders at a safe distance, or shield from welding or cutting operations and place where they cannot become part of an electrical circuit. Oxygen and acetylene must not be stored together. Cylinders shall be kept a minimum of 20ft apart or have fire wall separating them.

Oxygen and fuel gas regulators must be in proper working order while in use.

Concrete, Concrete Forms and Shoring

All protruding reinforcing steel, onto or into which employees could fall, must be guarded to eliminate the hazard of impalement. Wire mesh needs to be secure from recoiling.

Form work and shoring will be designed and constructed to safely support all loads imposed during concrete placement. All components will be inspected prior to erection. Drawings or plans of jack layout, form work, shoring, working decks and scaffolding systems will be available at the jobsite.

Forms and shores may not be removed until it has been determined that the concrete has gained sufficient strength to support its weight and superimposed loads.

Confined Space Entry

Some projects may require work in a confined space. The confined space will be identified prior to starting work. A confined space competent person will be identified. This competent person will be responsible for:

- Assigning responsibilities to employees performing the tasks.
- Conduct and document safety training prior to work.
- Select appropriate safety equipment.
- Identify any unique characteristics of the confined space.
- Assure all employees are familiar with emergency procedures.
- Isolate or restrict access to confined space so no other employees can enter.

Construction Equipment

- Heavy equipment shall be equipped with seat belts and proper back up alert systems
- Material Delivery/Truck & Equipment movement on site: A spotter will be required during backing of trucks and equipment in clear view of operator and having clear view of surrounding area.
- Back up alarms will be operational and present on all required equipment.
- Refueling and maintenance of equipment shall only take place when the equipment is turned off and the keys out of the ignition in the possession of the mechanic working on the piece of the equipment.
- All machinery and equipment in need of repair will be immediately removed from the job site so as to prevent accidental use by an employee.

Cranes or Derricks

Rated load capacities, recommended operating speeds, and special hazard warnings or instructions must be conspicuously posted on all equipment. Instructions or warnings must be visible from the operator's station.

Accessible areas within swing radius of a crane must be barricaded or signed to warn employees of the hazards from being struck or crushed by the crane.

Except where electrical distribution and transmission lines have been dc-energized and visibly grounded, or where insulating barriers not a part of or an attachment to the equipment or machinery have been erected to prevent physical contact with the lines, no part of a crane or its load shall be positioned or operated so it can come within 10 feet of a line rated to 50kV or below; 10 feet + 4 inches for each 1 kV over 50kV for lines rated over 50kV, or twice the length of the line insulator, but never less than 10 feet. Cranes will be inspected before each use by the operator. Any defects must be corrected before use. Logs of crane inspections must be kept with the crane.

Crane and Derrick Suspended Personnel Platforms

Crane or derrick suspended personnel platforms may not be used unless the erection, use, and dismantling of conventional means of reaching the worksite would be more hazardous or not possible. Equipment used for this purpose must be tested and equipped in strict accordance with 1926.550(g) or state plan equivalents.

Drugs and Alcohol

Use or possession of alcoholic beverages or illegal non-prescription drugs on the jobsite is forbidden. Workers reporting under the influence of alcohol or controlled substances will not be allowed to work. Workers reporting under the influence of alcohol or a controlled substance will be dismissed immediately.

Electrical-General

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

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

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

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

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

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

Electrical-GFCI or Inspection

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

Electrical-GFCI or Inspection (Continued)

An assured equipment grounding conductor program covers all cord sets, receptacles which are not a part of the permanent wiring of the building or structure, and equipment connected by cords and plugs.

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

Equipment Operation

No employee will operate electric, gas or hand-powered tools or equipment unless familiar with use of the item and safety precautions required. Supervisors will provide necessary safety information for all tasks and equipment.

Excavating and Trenching

Before opening any excavation, efforts (including utility company contact) must be made to determine if there are underground installations in the area. Underground utilities must be located and supported during excavation operations.

Walls and faces of trenches five feet or more in depth, and all excavations in which employees are exposed to danger from moving ground or cave-in, must be guarded by shoring or sloping.

Where employees may be required to enter excavations, excavated material must be stored at least two feet from the edge of the excavation.

Appoint a competent person. Make daily inspections of excavations. If evidence of possible cave-ins or slides is apparent, cease all work in the excavation until precautions have been taken.

Excavations 20-feet deep must have shoring or sloping designed by a professional engineer. Trenches four-feet deep or more require adequate means of exit such as ladders or steps, located so as to require no more than 25-feet of lateral travel.

Explosives and Blasting

Only authorized and qualified persons will be permitted to handle and use explosives. Smoking and open flames are not permitted within 50-feet of explosives and detonators.

Eye and Face Protection

Eye and face protection will be provided and must be worn when machines or operations present potential eye or face injury. Employees involved in welding operation must wear filter lenses or plates of the proper shade number. Employees exposed to laser beams must use suitable laser safety goggles which will protect for the specific wave length of the laser and be optical-density (O.D.) adequate for the energy involved.

Goggles will be worn over any employee owned prescription glasses that do not meet industrial safety standards. Safety goggles or glasses will be provided to the employee by VCC at no cost.

Fall Protection

Fall protection is required when working over 6 feet above the ground from a working platform such as bridge decks, roof decks, excavations, retaining walls, slopes, etc., or when working at any height over or adjacent of dangerous equipment or impalement hazards.

Body harnesses, lanyards and lifelines are to be used only for employee safeguarding. Body harnesses and lanyards shall have a minimum length to provide for a fall of no greater than 6 feet. These devices, including tie-off devices, shall be inspected before being used by the employee and periodically thereafter. Any device actually subject to in service loading shall be immediately removed from service and shall not be used again for employee safe guarding.

Safe working platforms or scaffolds are and effective method of fall protection providing 1 handrail, midrail and toeboard are installed and platform has been properly designed for the safe working load intended.

Safety nets shall be provided when workplaces are more than 25' above the ground or water surface or other surfaces where the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety harnesses are impractical.

Where safety net protection is required, operations shall not be undertaken until the net is in place and has been tested.

While working over water, where the danger of drowning exists, employees must wear life vests. Ring buoys with at least 90 feet of line must be provided no more than 150 feet apart. At least one lifesaving boat will be immediately available. If it can be proven that 100% fall protection is employed at all times then a life vest (PFT) is not required.

Scaffolds and their components shall be capable of carrying four times their intended loads.

Fall Protection (Continued)

A screen shall be provided between the toe board and guide rail where persons are required to pass or work under the scaffold. Overhead protection shall be provided for workers on a scaffold exposed to overhead hazards. A ladder is to be provided for access onto and off of the scaffold.

Planking shall extend over supports not less than six inches nor more than twelve inches. Planking shall be lapped a minimum of twelve inches.

Guard rails shall be installed on all open sides of scaffold above six feet.

a. top rail approximately 42 inches high.
b. mid rail 23 inches high.
c. toe board 4 inches high.

Scaffold shall be tied off and securely braced. Planks shall be a minimum of 2" x 10" timber and cleated where lapped.

Only approved fall protection equipment will be used.

Superintendents and employees will be periodically trained on topics of fall protection.

The superintendent is responsible for enforcing fall protection standards on the job site.

The project manager and superintendent will address areas and items requiring fall protection in the Job Specific Safety Plan. The safety director may be consulted if necessary. Outside consultants or engineers may be consulted if safety director deems it necessary.

Fencing

Security fencing protects employees, the company and the general public. Some projects may require it. All fencing, when required, must be maintained by all employees to the extent of their job description. Report to your supervisor defects beyond your ability to repair.

Fire Protection

A fire needs an oxidizer, fuel and an ignition source to be present for a fire to occur. There are four different types of fires and are as follows:

A) Class A fire: This consists of normal combustible material such as paper and wood. This can be an open flame.

B) Class B fire: Flammable liquids, gasoline, oil, paints, grease, etc.

C) Class C fire: Electrical equipment

D) Class D fire: Combustible Metals.

Extinguisher Use: Most extinguishers should be aimed at the base of the fire closest to you and work into the fire toward the rear.

Extinguisher Placement: Firefighting equipment must be conspicuously located and readily accessible at all times, and periodically inspected and maintained in operating condition. Report any inoperative or mission equipment to your supervisor. At least one portable fire extinguisher of not less than 20B units shall be located and properly mounted no more than 75 feet or less than 25 feet from any outside storage unit. At least one 20B unit shall be mounted on each vehicle used for the transportation of flammable liquids and shall conspicuously located.

Fire extinguishers, rated not less than 2A, will be provided for each 3,000 square feet of building area (or major fraction). Travel distance from any point to the nearest fire extinguisher may not exceed 100-feet with at least one extinguisher per floor. In multi-story buildings, at least one fire extinguisher must be located adjacent to the stairway.

Materials should not be stored in front of fire extinguishers and access to extinguishers should be maintained at all times.

Flag Personnel

When signs, signals, and barricades do not provide necessary protection on or adjacent to a highway or street, flag personnel or other appropriate traffic controls, must be used. Flag personnel will wear appropriate specified garments while performing these duties. All employees designated as flag personnel will be trained by the Company competent person or an outside consultant on maintenance of traffic and flagging.

Flammable and Combustible Liquids

Only approved containers and portable tanks will be used for storage and handling of flammable and combustible liquids.

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

No more than 60 gallons of flammable or 120 gallons of combustible liquids may be stored in any one storage cabinet.

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

Storage in containers outside buildings may not exceed 1,100 gallons in any one pile or area. Grade storage areas to divert possible spills away from buildings or other exposures, or surround storage areas with a curb or dike. Locate storage areas at least 20-feet from any building and keep free from weeds, debris, and other combustible materials. Keep flammable liquids in closed containers when not in use. Make sure and approved fire extinguisher is readily available.

Post conspicuous and legible signs prohibiting smoking in service and refueling areas.

Gases, Vapors, Fumes, Dusts, and Mists

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

When engineering and administrative controls are not feasible to achieve full compliance, protective equipment or other protective measures will be used to keep the exposure of employees to air contaminants within the limits prescribed. Any equipment and technical measures used for this purpose must be reviewed for each particular use by a technically qualified person. Employees will wear all furnished equipment at all times.

Hand Tools

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

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

Hard Hats

Hard hats will be worn at all times on construction sites. Hard Hats will be provided to the employee by VCC at no cost.

Hazard Communication

Employees will receive training on their rights, duties and responsibilities under the Hazard Communication Standard. A copy of the company's program and the standard will be made available to all employees on request. Employees will review Material Safety Data Sheets when working with a covered material for the first time and anytime thereafter when a question arises. Safety precautions outlined on Material Safety Data Sheets are to be followed.

Hearing Protection

Hearing protection will be worn in areas where sound levels may exceed *85* decibels. Hearing protection will be provided by VCC at no cost to employee.

Horseplay

All disruptive activities usually referred to as "horseplay" are forbidden. No practical jokes or fights will be tolerated.

Housekeeping

Good housekeeping is the first rule of accident prevention in construction and should be a primary concern of all Superintendents and Foremen. Good housekeeping should be planned at the beginning of the job, carefully supervised and followed to the final cleanup.

Provide adequate and proper storage for tools so they will not be needlessly scattered around.

See that material in storage area is piled or stacked properly so it cannot fall.

Provide safe and sufficient containers for rubbish and waste and place them so they can be used easily.

Designate one "dumping area" for worn out parts and obsolete equipment.

Provide safe storage of oxygen and acetylene tanks, never allow tanks to lay in dirt or mud, maintain them upright at all times and replace caps when not in use.

All lumber and other materials/ items with projecting nails should be removed to a designated area. Lumber to be reused should have all projecting nails removed and the lumber shall be properly stacked or piled. Scrap lumber, debris, and other scrap materials should be removed to a designated disposal area.

Housekeeping (Continued)

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

Superintendent and employees should continually inspect and maintain job housekeeping.

Injuries/Illnesses

All injuries/illnesses will be reported immediately to your supervisor.

Ladders

The use of ladders with broken or missing rungs or steps and or broken or split side rails is prohibited. When ladders with such defects are discovered, withdraw them from service immediately. Place portable ladders on a substantial base at a 4:1 pitch, have clear access at top and bottom, extend a minimum of 36 inches above landing or, where not practicable, provide grab rails. Secure against movement while in use.

Portable metal ladders may not be used for electrical work or where they may contact electrical conductors.

Job-made ladders will be constructed for their intended use. Cleats will be inset into side rails 1/2 inch, or filler blocks used. Cleats will be uniformly spaced, 12 inches, top-to-top.

Leading Edge Protection

When a drop off of more than 6 feet exists off a structure or platform where employees can access then these precautions need to be taken:

- The leading edge needs to be clearly delineated a minimum of 6 feet from the edge of structure.
- Delineation must consist of adequate number barricades, ropes, safety tape or other warning devices that will adequately warn employees of the leading edge hazard.
- All employees working in the area will be notified of the leading edge protection and designated warning line prior to working in this area.
- Access to work area will be restricted to only those designated and informed by the Superintendent.

Leading edge protection should only be used in a temporary situation when all other practical protection is not feasible.

Liquefied Petroleum Gas (LPG)

Each system will have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type.

Each container and vaporizer must be provided with one or more approved safety relief valves or devices. Containers will be placed upright on firm foundations and/or otherwise firmly secured.

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

Mechanical Guarding

Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, or other reciprocating, rotating, or moving parts of equipment must be guarded if such parts are exposed to contact by employees or otherwise constitute a hazard. No equipment may be used without guards in place.

Medical Services and First Aid

A first aid kit will be provided ant each project location. Supplies will replenished as needed.

First Aid at the job site will be self-administered only.

If the job site is located in a remote area where emergency services are not available, adequate provisions will be specified in the Job Specific Safety Plan.

Non-emergency cases will be referred to the employees' private physician.

All accidents that require attention, no matter how small, MUST be brought to the attention of the Safety Director or Job Superintendent.

Emergency telephone numbers MUST be included in the Job Specific Safety Plan and posted at the jobsite.

Medical Services and First Aid (Continued)

The following is list of numbers that must be compiled and posted when the job begins:

	NAME	PHONE#
SAFETY DIRECTOR		
JOB SUPERINTENDENT		
LOCAL PHYSICIAN		
HOSPITAL		
AMBULANCE SERVICE		
FIRE DEPARTMENT		
POLICE DEPARTMENT		

Motor Vehicles and Mechanized Equipment

Check all vehicles in use at beginning of each shift to assure all parts, equipment and accessories affecting safe operation are in proper operating condition and free from defects. Make sure all back up alarms and horns are operational.

All defects shall be corrected before placing vehicle in service.

No employee shall use any motor vehicle, earthmoving, or compacting equipment having an obstructed view to the rear unless vehicle has a working reverse signal alarm distinguishable from the surrounding noise level.

Heavy machinery, equipment, or parts thereof, which are suspended or held aloft while performing maintenance or repair will be substantially blocked or locked, to prevent falling or shifting while working under or between them.

Overhead Utility Safety

Prior to operating any heavy equipment or dump trucks on a site, the superintendent and project manager will perform a visual survey of the site. LOOK UP! All utility lines in the work area will be identified and marked with either signs or pavement markings.

All overhead lines will be considered energized unless the utility company verifies the lines are dead or de-energized.

If work activities may conflict with existing utility lines then the lines need to be moved, de-energized or protected by the appropriate utility company.

If lines cannot be de-energized or adequately protected and insulated, then a safe working distance or 10ft shall be maintained between the equipment and utility.

Only use non-conductive ladders when working near power lines.

Personal Protective Equipment

The following protective equipment will be issued to those employees who are exposed to the hazards indicated. The Superintendent must distribute the equipment and enforce its use.

- *Hard hats* - All employees must wear hard hats regardless of their craft.
- *Goggles* - To be worn where there is danger of eye injury from chipping, sawing, grinding, cutting, welding, exposure to heavy dusts, acid, or other toxic liquids.
- *Ear Protection* - Ear plugs must be worn when noise exceeds the permissible levels. The company requires all employees with potential exposure to excessive noise to use these protective devices (levels in excess of 85 DBA or equivalent over an 8 hour period).
- *Face Shields* - To be worn where full face protection is required in exposures similar to those listed under goggles. Welders must wear welding helmets.
- *Gloves* - To be worn when exposed to sustained heat and sparks, acids, corrosives, electrical exposure.
- *Respirators* - To be used where conditions of dust, fumes, gases, sandblasting, or any situation which presents oxygen deficiency. Refer to Respiratory Protection Program for details.
- *Rubber Boots* - To be used when working in concrete or water.
- .*Life Jackets* - To be used when working over water where the danger of drowning exists and 100% fall protection is not feasible.
- *ANSI Hi visible shirts or vests*- To be worn by men or women when flagging trafficor working on a federal, state or municipal project at all times.
- L*ifelines, Safety Harnesses, and Lanyards* - Shall be used when safeguarding against falls. Lifelines shall be secured in a manner which limits any possible fall to a maximum of six feet.

All personal protective equipment will be supplied and made available by the Company

The employee is responsible for wearing appropriate personal protective equipment in operations where there is exposure to hazardous conditions, or where need is indicated to reduce hazards.

Protection of the Public

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

Railings

A standard railing will consist of top rail, intermediate rail, toe board, and posts, and have a vertical height of approximately 42 inches from upper surface of top rail to floor. The top rail of a railing will be smooth-surfaced, with a strength to withstand at least 200 pounds. The intermediate rail will be approximately halfway between top rail and floor.

A stair railing will be of construction similar to a standard railing, but the vertical height will not be more than 34 inches nor less than 30 inches from upper surface of top rail to surface of tread in line with face of riser at forward edge of tread.

Respiratory Protection

In emergencies, or when feasible engineering or administrative controls are not effective in controlling toxic substances, approved respiratory protective equipment will be provided and used. Respiratory protective devices will be approved for the hazardous material involved and extent and nature of work requirements and conditions. Employees required to use respiratory protective devices will be thoroughly trained in their use and be fit tested for the device they are using. Respiratory protective equipment will be inspected regularly and maintained in good condition. See VCC's Respiratory Protection Plan for projects requiring it.

Rollover Protective Structures (ROPS)

Rollover protective structures (ROPS) standards apply to the following types of materials handling equipment: all rubber-tired, self-propelled scrapers, rubber-tired front-end loaders, rubber-tired dozers, wheel-type agricultural and industrial tractors, crawler tractors, crawler-type loaders, and motor graders, with or without attachments that are used in construction work. This requirement does not apply to sideboom pipe laying tractors

Safety Nets

Safety nets are only required when workplaces are more than 25 feet above the surface and the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety harnesses are impractical. State or local regulations may differ.

Saws

All portions of band saw blades will be enclosed or guarded, except for working portion of blades between bottom of guide rolls and table.

Portable, power-driven circular saws will be equipped with guards above and below the base plate or shoe.

Saws (Continued)

The lower guard will cover the saw to depth of teeth, except for minimum arc required to allow proper retraction and contact with the work, and will automatically return to covering position when blade is removed from the work.

Radial saws will have an upper guard which completely encloses upper half of the saw blade. The sides of lower exposed portion of blade will be guarded by a device that will automatically adjust to the thickness of and remain in contact with material being cut. Radial saws used for ripping must have non-kickback fingers or dogs. Radial saws will be installed so the cutting head will return to starting position when released by operator.

All swing or sliding cut-off saws will be provided with a hood that will completely enclose the upper half of the saw.

Limit stops will be provided to prevent swing or sliding type cut-off saws from extending beyond the front or back edges of the table.

Each swing or sliding cut-off saw will be provided with an effective device to return the saw automatically to the back of table when released at any point of its travel.

Inverted sliding cut-off saws will be provided with a hood that will cover the part of the saw that protrudes above top of the table or material being cut.

Circular table saws will have a hood over the portion of the saw above the table mounted so that the hood will automatically adjust itself to the thickness of and remain in contact with the material being cut.

Circular table saws will have a spreader aligned with the blade, spaced no more than 1/2 inch behind the largest blade mounted in the saw. Circular table saws used for ripping will have non-kickback fingers or dogs. Feed rolls and blades of self-feed circular saws will be protected by a hood or guard to prevent the hands of the operator from coming into contact with in running rolls at any time.

Scaffolds (General see Fall Protection also)

Scaffolds will be capable of supporting their own weight and at least four times maximum intended load and will be erected on sound, rigid footing, capable of carrying the maximum intended load without settling or displacement and erected and used in accordance with manufacturers' recommendations.

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

Scaffolds (General see Fall Protection also) (Continued)

There will be a screen with maximum 1/2 inch openings between toe boards and guardrail, where persons are required to work or pass under scaffolds. Planking will be Scaffold Grade, or equivalent, as recognized by approved grading rules for the species of wood used. Overlap scaffold planking a minimum of 12 inches or secure from movement

Scaffold planks will extend over end supports not less than 6 inches nor more than 12 inches. Scaffolding and accessories with defective parts will be immediately replaced or repaired.

Scaffolds (Swinging)

On suspension scaffolds designed for a working load of 500 pounds, no more than two persons will be permitted to work at one time. On suspension scaffolds with a working load of *750* pounds, no more than three persons may work at one time. Each employee will wear an approved harness attached to a lifeline. The lifeline will be securely attached to substantial members of the structure (not scaffold), or to securely rigged lines, which will safety suspend employee in case of fall.

Scaffolds (Tubular Welded Frame)

Scaffolds will be properly braced by cross bracing or diagonal braces, or both, for securing vertical members together laterally. Cross braces will be of such length as will automatically square and align vertical members so erected scaffold is plumb, square, and rigid. All brace connections will be made secure.

Signs

For the protection of all, when conditions indicate, appropriate directional or warning signs should be posted. All employees will obey these directions and aid in maintaining the signs.

Storage

All materials stored in tiers will be secured to prevent sliding, falling or collapse.

Aisles and passageways will be kept clear and in good repair.

Stored materials will not obstruct exits. Materials will be sorted with due regard to fire characteristics.

Toilets

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

Utilities-Underground

Prior to starting a project that requires excavating, the project manager and superintendent will survey the site for any existing utilities, both overhead and underground. The area of excavation will be clearly marked with WHITE PAINT. Dig Safely New York will be contacted to layout and identify any existing utilities within the work limits. DSNY 1-800-962-7962.

VCC will allow 3 working days for all utilities to respond. The superintendent will make all employees aware of utility locations once marked. It is important to maintain and protect markings for the duration of the excavation project.

Any utilities that have been marked in or adjacent to the area to be excavated will be located by hand digging where feasible. It may be necessary to call for refresher markings if a projects duration requires it.

Wall Openings

Wall openings, from which there is a drop of more than six feet and the bottom of opening is less than 39 inches above working surface, will be guarded. When the height and placement of the opening in relation to the working surface is such that a standard rail or intermediate rail will effectively reduce the danger of falling, one or both will be provided. The bottom of a wall opening, which is less than four inches above the working surface, will be protected by a standard toe board or an enclosing screen.

Welding, Cutting and Heating

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

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

Welding, Cutting and Heating (Continued)

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

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

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

Wire Ropes, Chains, Ropes and Rigging Equipment

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

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

Working Over or Near Water

Employees working over or near water, where the danger of drowning exists, shall be provided with US Coast Guard approved life jacket or buoyant work vest. Employees protected by harness/lanyards, suitable railings, safety nets or any other fall protection where 100% fall protection can be achieved and enforced, will not be required to where a life vest.

Prior to and after each use, the buoyant work vest or life preserver shall be inspected for defects which would alter the performance of the vest. Defective units shall be replaced immediately.

Ring buoys with at least 90 ft of line shall be available for emergency rescue operations. No more than 150 ft shall exist between buoys.

Where the water source is navigable, at least one life saving skiff will be available and ready for employees are working over water or adjacent to water.

Hazard Communication Plan

Statement of Plan:

This procedure details the necessary provisions for complying with 29 CFR 1926.59 Hazard Communication (HAZCOM) by specifying the protocol for conducting a chemical inventory, compiling a chemical inventory list, obtaining Material Safety Data Sheets (MSDS)(SDS's), labeling, and training employees about the health and physical hazards of listed chemicals. This procedure applies to chemical procurement, use, and storage whether on the Company premises as well as all chemical materials transported to the field for site use.

Responsibilities:

1. The Safety Director is responsible for managing and implementing the Plan.

2. The Project Superintendent will be responsible for enforcing the Plan.

3. The Employee is responsible for following any rules and regulations regarding

Hazardous Materials that the Safety Director or Superintendent has provided them with.

Description of Procedure:

Chemical Inventory and Listing

- The Company Safety Director has the responsibility to conduct a chemical inventory and compile a listing of all chemicals used or stored on the premises, or at remote job locations. This master chemical listing is to include all chemical materials purchased, such as, but not limited to, chemical materials purchased for painting applications, cleaning, etc. , whether temporarily stored for transport to the field on the premises, used by maintenance, etc. Not included in the master chemical listing would be items such as:
  - Foods, drugs, or cosmetics intended for personal consumption by employees;
  - Any consumer product or hazardous substance used in the workplace in the same manner as normal consumer use, and which use results in a duration and frequency of exposure which is not greater than exposures experienced by consumers; and,
  - Office products to which office workers would have non-route exposure.

Chemical Inventory and Listing (Continued)

- Material Safety Data Sheets (MSDS)(SDS's)
  - An MSDS (SDS) for each material listed in the master chemical listing must be obtained from the chemical supplier.
  - No chemical materials will be received, used, or stored without having an accompanying MSDS (SDS).
  - Once received, all MSDS (SDS) must be retained with the master chemical listing in a hardbound binder. The binder containing the master chemical listing and MSDS (SDS) must be retained at each site location and be readily available for staff access.
  - Chemical materials purchased for fuel use, or stored on the premises prior to transportation to the field must have a copy of the MSDS (SDS) accompany the material to the field and be retained on-site. A MSDS (SDS) Folder or Disk will be given to EIC for his/her use. Any additional items that are specific to a project will have MSDS(SDS) available on site.

Container Labels

- All containers of chemical materials identified on the master chemical listing must be labeled as per the hazard information provided in the SDS. No unlabeled containers of chemical materials should be accepted from the chemical supplier. The label must contain the following information:
  - Identity of the hazardous chemical(s);
  - Appropriate hazard warning (i.e. toxic, flammable, corrosive, irritating, etc.)
  - Name and address of the chemical manufacturer.
- Existing labels on in-coming containers of hazardous chemicals must not be removed or defaced.
- Containers transported to the field must be labeled at all times as per item A above.
- Chemicals dispensed on-site into a portable container which are intended only for the immediate use of the employee who dispensed the chemical will not require additional labeling.

Information and Training

- All new employees will receive training in hazard communication approved by the Safety Director. Attendance at the HAZCOM training must be documented. Training must include the following:
  - Information on Right to Know Law: Employees have the right to submit a written request at any time asking for information concerning safety and Health hazards of toxic substances found in work place.
  - Information on the location and availability of the master chemical listing and SDS binder;
  - A review of the physical and health hazards of the chemical on the master chemical listing; and
  - Measures that the employee must take to protect themselves from the physical and health hazards, such as, appropriate work practices, emergency procedures, and personal protective equipment to be used whenever handling the hazardous chemicals.
  - An explanation of the labeling system and the Material Safety Data Sheet (an SDS explanation format follows this section).
  - Work rules and safe practices.
  - Use of personal protective equipment and the levels of protection specified at the site.
  - Medical surveillance requirements if necessary.
  - Site control measures if necessary.
  - Decontamination procedures if necessary.

Chemical Storage

- All SDSs must be reviewed to determine the proper storage requirements and precautions.

  Storage requirements must be strictly adhered to both in the field and on Company premises.

- All chemical materials must be stored as per the SDSs regarding compatibility, corrosivity, flammability, reactivity, etc.

- No flammable or combustible liquid may be stored in an office environment.

- All storage of flammable and combustible liquids must be in closed metal containers (glass or approved plastic container is permitted up to a one gallon capacity if contact with a metal container would render the liquid unfit for its intended use or would corrode a metal container so as to create a leakage hazard) and stored properly.

How To Use An SDS Sheet:

- **Manufacturers and suppliers** are required to provide SDSs to their customers. OSHA requires that the content of the SDSs be based on the results of specific testing procedures designed to determine the toxic and hazardous characteristics of each material.

- **Vector Construction Corp.** uses SDSs to get information about the properties of the chemicals we work with and how these chemicals can be used safely.

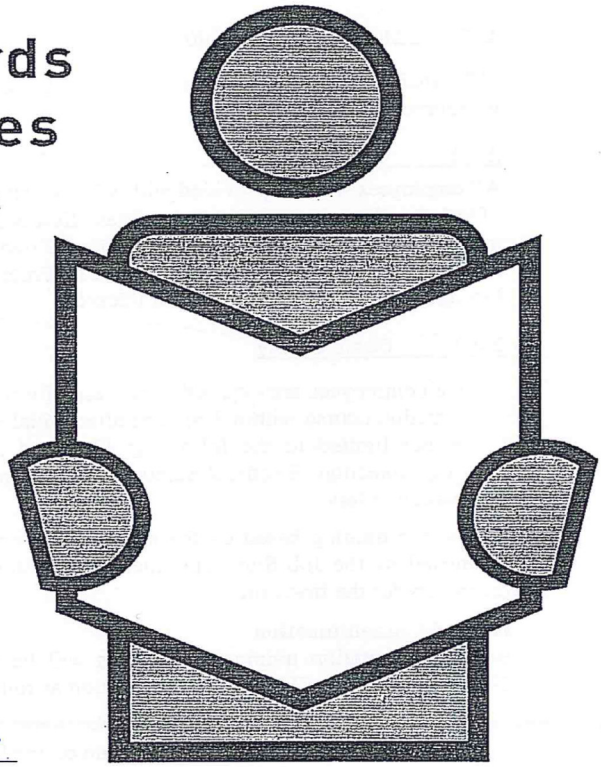
- Although the standard does not require a specific SDS format, a commonly used one is that of OSHA form 174.

- An SDS is usually broken down into 8,9,10 or more sections. The number of Sections of an SDS has no effect on the quality of the data presented. Additionally, the different sections of an SDS may be arranged in any sequence desired by the manufacturer.

- An explanation of the types of information and where it is found on the SDS is identified on the attached OSHA quick card.

YOU HAVE A RIGHT TO KNOW!

Your employer must inform you of the health effects and hazards of toxic substances at your worksite.



Learn all you can about toxic substances on your job.

For more information, contact:

RICHARD P. ANDERSON, PRESIDENT
Name

6364 ISLAND ROAD, CICERO NY 13039 (315) 699-9277
Location & Phone Number

THE RIGHT TO KNOW LAW WORKS FOR YOU.
NEW YORK STATE DEPARTMENT OF HEALTH

2706 4/00

OSHA QUICK CARD™

Hazard Communication Safety Data Sheets

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/ effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15(29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees.
See Appendix D of 1910.1200 for a detailed description of SDS contents.

For more information: www.osha.gov

OSHA (800) 321-OSHA (6742)

U.S. Department of Labor

Hazardous Exposure Awareness and Prevention Plan

Statement of plan

The purpose of this section is to clarify how Vector Construction Corporation will identify project specific hazards that may require additional measure not specifically addressed in the Company Safety Program. This particularly pertains to Lead and Silica exposures that may develop over the course of some projects. In most cases the Hazardous Communication Plan and Respiratory Protection Plan will dictate the necessary precautions to be implemented.

Responsibilities

The company Safety Director and Project Manager will identify hazards and develop a Site Specific Safety Plan. The Project Manager and Project Superintendent will implement and enforce the plan. The Employees will be required to abide by the Plan.

Procedure

Prior to starting a new project, the Project Manager and Safety Director will develop a Site Specific Safety Plan. This Plan will identify hazards that are specific to the project. The plan will also address how the company plans to implement employee awareness and protection of the hazards that exist on the project. In some cases, a SSSP may not be adequate and additional measures will be taken (i.e. Lead Exposure Control Plan). Periodic assessment of the Plan and the Plan's effectiveness will be required depending on the size and duration of the project.

END OF PROCEDURE

Lead Health and Safety Program

Statement of Policy:

This Section presents a written OSHA Lead Compliance Plan to achieve the goal of protecting workers from occupational hazards to airborne lead during lead based paint removal operations. Control methods used to protect workers include: engineering controls; work practice controls; administrative controls and; respiratory protection controls.

The Company views this written plan as an essential part of its OSHA compliance program. It forms the basis of determining the Company's ability to achieve its goal and provides the necessary documentation to employees and their designated representatives of the compliance methods chosen, the extent to which controls have been instituted, and any plans to institute further controls.

Description of Procedure:

Responsibilities

- **Company Health and Safety Director**
  - Ensures that the provisions of this Section are accomplished and enforced.
  - Furnishes this Section upon request for examination and copying to affected employees and their designated representatives.
- **Company Safety Consultant**
  - Assists in determining prior to the performance of the job whether lead is present in the workplace.
  - Assists the Company Health and Safety Director regarding the selection and implementation of control methods based on the Company's exposure assessments, or historical data, on a project by project basis.
  - Ensures the adequacy of any monitoring data and exposure assessments.

Description of Procedure: (Continued)

Responsibilities (Continued)

- **Competent Person**

  - Ensures that all employees wear required protective work clothing (PWC) and personal protective equipment (PPE) and are trained in and use appropriate exposure control methods.

  - Completes Site specific lead exposure compliance program (A copy follows this Section).

  - Ensures that proper hygiene facilities are provided and used.

  - Ensures that engineering controls are designed, operated and maintained properly. This is an evaluation of mechanical ventilation performance and includes, but is not limited to: review of personal monitoring data; documentation of ventilation specifications and checks to assure performance; review of maintenance procedure; and determine that the implemented schedule for maintenance by qualified personnel will verify the performance of any mechanical ventilation.

  - Demarcates lead work areas.

  - Takes necessary effective measures to reduce lead hazards by means of frequent inspections.

  - Records inspection findings and identify and correct deficiencies in a timely and consistent fashion.

  - Maintains a copy of this Section, or site-specific plan, at the jobsite.

  - Provides feedback to the Company Health and Safety Director on control methods effectiveness.

Description of Procedure: (Continued)

Control Methods

- Engineering Controls: includes containment systems, mechanical dilution ventilation, local exhausting, etc. necessary to reduce exposure to airborne lead below the Permissible Exposure Limit (50 ug/m3). Engineering controls are the preferred methodology. Where mechanical ventilation is used to control employee exposure to lead, the Company will evaluate the performance of the system in controlling exposures as necessary to maintain its effectiveness.

  Table 5 of the OSHA 1926.62 Preamble, "Analysis of Engineering Controls and Respirators Needed to Achieve Compliance with the 50 ug/m3 PEL" is one source to determine technologically feasible engineering controls.

- Work Practice Controls: includes site-specific work practices (techniques of paint removal that generate the least amount of dust, wetting where appropriate, HEPA vacuuming, prohibiting eating or smoking in the work area, protective work clothing, etc.) to reduce exposure to airborne lead below the Permissible Exposure Limit (50 ug/m3). Work practice controls are to be used in conjunction with engineering controls.

- Administrative Controls: includes employee rotation schedules to lower employees' exposures. Exposure data will be developed and maintained for each rotated employee that accurately represents the cumulative 8 hour TWA for each rotated employee.

- Respiratory Protection Controls: includes the selection and fitting of appropriate air-purifying, or supplied-air respirators to employees based on exposure data from the Company's exposure assessments, or other historical data. Where engineering, work practice and administrative controls have been implemented to reduce exposure to the lowest feasible level but exposures still exceed the PEL, respiratory protection that complies with 1926.62 (f) will also be used to protect employees.

Tasks

- The following tasks performed by the Company are hereby identified as being representative of those requiring one or more of the control methods specified in the previous section.

  - *Abrasive Blasting* - Removing scale, paint and dirt from surfaces prior to repainting. Abrasive media includes sand, steel grit, steel shot, aluminum oxide, and others.

Description of Procedure: (Continued)

Tasks (Continued)

- *Welding Cutting and Burning on Steel Structures* - Involves the process of heating the coated steel to its melting temperature typically by using oxy-acetylene or an arc welder.

- *Lead Burning* - Involves torch melting or fusing of lead or alloyed lead to another lead object.

- *Manual Scraping and Sanding* - Associated with lead paint removal and involves the application of hand-held scraping or sanding tool to the painted surface containing lead.

- *Manual Demolition of Structures* - Involves removal of walls (plaster, gypsum) or building components coated with lead based paint.

- *Heat Gun Application* - Involves use of head gun that produces a stream of hot air which is directed to the surfaces to melt lead paint which is subsequently scraped off.

- *Using Lead Container Mortar* - Used in high pressure acid tanks lined with specialized tile or lead brick held in place with specialized lead-containing mortar or grout. These tank linings periodically require painting, repairing or relining involving lead containing mortar.

- *Abrasive Blasting Enclosure Movement and Removal* - Involves moving and removal of blasting enclosure or containment units as work proceeds on a structure. Such units are composed of flexible nylon, plastic, or burlap tarpaulins upon which lead dust will accumulate and be re-entrained when moving of structure occurs.

- *Power Tool Cleaning* - Involves use of power tolls (grinders, brushes, needle guns, sanders, etc.) to remove dirt, scale, or paint from the structures where lead based paint is present.

- *Rivet Busting* - Involves removal of rivets from steel structures where lead containing paints are present. Rivet busing can involve use of torches and mechanical means for rivet extraction.

- *Clean Up Activities Where Dry External Abrasive Are Used* - Pertains to the use of non-recycled dry abrasive during abrasive blasting operations on structures.

Site-Specific Lead Exposure Compliance Form

Project: _____

Starting Date: _____

Location: _____

Competent Person: _____

1. Work activities with potential Lead exposure;

_____
_____
_____
_____

2. Type of controls to be implemented;

_____
_____
_____

3. Alternative controls to be considered;

_____
_____
_____

4. Air monitoring data review and schedule;

_____
_____
_____

5. Anticipated project schedule(duration of lead removal operations);

_____
_____
_____

Lead Exposure Compliance Checklist

Before start of project;

1. Identify lead exposure tasks.
2. Determine methods of control.
3. Review historical air monitoring data.
4. Select personal protective equipment.
5. Make program available to employees.

During project;

1. Periodically inspect control systems.
2. Review past and present air monitoring data.
3. Periodically inspect personal protective devices.
4. Monitor workers hygene practices with respect to clean-up after working with lead.
5. Maintain documentation.

At Project Completion:

1. Review all data and documentation and maintain for future reference.

END OF PROCEDURE

Respiratory Protection Plan

Statement of Plan:

This Section contains the necessary instructions for the selection, use, and care of respiratory protective equipment (respirators), including both air purifying (e.g., chemical cartridge, gas mask, dust/mist) and air-supplied (e.g. blast helmets, self-contained breathing apparatus (SCUBA) and other airline respirators). This Section applies when it is determined that employees will be subject to hazardous work environments above the OSHA PEL and working in those environments safely requires the use of respirators.

Description of Procedure:

Medical Clearance

- Prior to issuing a respirator, a determination must be made by the Company's Occupational Medical Consultant of each individual's physical condition and ability to tolerate such equipment. Only those employees who have received medical clearance may be issued respiratory protective equipment.

- Medical recertification must be performed at least annually.

Selection

- Employees must use only respirators selected, supplied, and/or approved by the Company. The Company Health & Safety Consultant will assist in ensuring that the proper respirator is selected and purchased. (A chart of common respirators acceptable for lead exposure follows this Section).

- Air purifying respirators must be full-faced piece, dual cartridge respirators, or Powered Air Purifying Respirators (PAPR).

- Respirators must have a NIOSH/MSHA approval.

- Respirator cartridge selection must be based on the site-specific hazards anticipated project-by-project, or those identified in any site specific Health & Safety Plan (HASP). The following points will be considered when selecting air purifying cartridges or canisters:

  - The potential for a contaminant(s) to be present in concentrations which present an immediate danger to life and health (IDLH) and/or an oxygen deficient atmosphere;

Description of Procedure: (Continued)

Selection (Continued)

- The nature of the air contaminant (e.g. gas, vapor, or particulate);
- The anticipated contaminant concentration;
- The odor characteristics, including odor threshold;
- Irritant properties;
- The Occupational Safety and Health Administration, Permissible Exposure Limit (OSHA, PEL), The American Conference of Governmental Industrial Hygienist, Threshold Limit Value (ACGIH, TLV), and/or the National Institute of Occupational Safety and Health, Recommended Exposure Limit (NIOSH< REL); and
- Anticipated duration of respirator usage.

- E. The NIOSH Assigned Protection Factors for various respirator types provide additional selection criteria.

Training

- All employees must be trained in the proper use, care, storage, and limitations of respiratory protective equipment prior to use.
- Annual training will be provided during periodic refresher training tool box talks.

Fit Testing

- Initial and periodic qualitative fit testing must be performed. These tests must be performed at least annually. Additional fit testing can be performed by trained and qualified individuals at remote work sites.
- Respirators must be properly fitted and not worn when facial conditions prevent a good respirator-to-face seal. This includes the presence of facial hair, beards, head coverings, and eyeglass temple bars.
- Only those respirators which have been properly fitted bay be worn by the individual. Alternative respirator makes and models will require additional fit testing.

Description of Procedure: (Continued)

Usage

- Employees must wear and properly use all respirators in accordance with instruction and training.

- Respirators must be assigned to each individual for their exclusive use.

- Wearing contact lenses while wearing a respirator is not permitted.

- No attempt must be made to make adjustments or repairs beyond the respirator manufacturers' recommendation.

- Respirator users must vacate the contaminated area immediately upon notice of physical symptoms, such as nausea, dizziness, odor breakthrough or any other condition, which indicates respirator failure.

- Respirators cartridges must be discarded and replaced whenever damaged, defective, dirty, odor is detected, or at least daily.

Maintenance

- Respirators must be inspected by the user both before and after each use, for defects in the face piece, headbands, and cartridge retaining mechanism.

- Respirators must be cleaned and disinfected by the user after each use. Following cleaning and disinfecting, the respirator must be reinspected and placed in a plastic bag or sanitary container for storage.

- After each use of a Self-Contained Breathing Apparatus (SCBA), the user is responsible for arranging to have the unit(s) serviced and cylinder fully recharged.

- All SCBA and airline equipment must be inspected and maintained for use on a monthly basis.

Description of Procedure: (Continued)

Storage

- Respirators must be stored so as to protect against dust, sunlight, extreme heat and cold, excessive moisture, and damaging chemicals.

- Respirators must be packed and stored so that the face piece and exhalation valve will retain a normal position and function.

- Unused filters and cartridges must be stored in a contaminant-free environment.

Limitations

- The following restrictions apply to the use of respirators:

  - Employees must not enter an atmosphere that is known or suspected to be dangerous without wearing the appropriate respiratory protection.

  - Employees must use only those respirators for which he/she has been properly fit tested.

  - Air-purifying, negative pressure respirators must not be used when one or more of the following conditions is known or suspected to exist:

    A. Airborne concentrations of contaminants exceed the calculated Maximum Use Concentration (MUC) for the respirator in use (e.g., MUC equals the Assigned Protection Factor (APF) multiplied by the applicable PEL-TEV or REL).

    B. In atmospheres which are IDLH or oxygen deficient (e.g. less than 19.5% oxygen).

    C. For protection against contaminants having inadequate warning properties, (e.g., poor odor or irritation threshold) unless specifically permitted by an OSHA substance specific standard.

    D. For protection against chemicals which the cartridge is inappropriate, and/or where a cartridge is not available for the contaminant of concern.

  - Employees must not enter a confined space (e.g., tank, sewer, closed vessel, etc.) without consulting either the Health & Safety Plan (HASP) written for the project and/or the designated Site Competent Person.

Description of Procedure: (Continued)

Record Keeping

- Records of medical certification and recertification must be retained by the Company Health and Safety Director at the Main Office.

- All fit test forms must be included Company's Recordkeeping System.

- Records of fit-testing for full time employees must be retained in the employee's employment file.

END OF PROCEDURE

Silicosis Prevention Plan

Purpose:

The purpose of this plan is to minimize and/or prevent employee exposure to silica dust thereby preventing the possibility of the employee contracting Silicosis. For employees who will be exposed to silica dust, appropriate respiratory measures will be taken to safely deal with the exposures.

Responsibilities:

The company will educate employees of the hazards of exposure to silica dust. The company will provide air monitoring when required to determine specific exposure levels. The company will provide PPE (i.e. approved respirators) at no cost to the employee. The company will enforce the Company Respiratory Protection Plan. The company will provide record keeping as required.

The employee will be required to follow the rules and regulations set forth by the company with regards to Silicosis Prevention. The employee will be subject to disciplinary measures as set forth in the Company Safety and Health Plan.

Procedure:

Prior to the start of a project, the Company Safety Director, the Project Manager, and the Project Superintendent will identify activities that may create exposure to silica dust. Utilizing Table 1 of OSHA section 1926.1153 as guidance, job specific protocols may need to be established. Table 1 is included as Appendix A to this procedure.

- **If it can be determined prior to project starting that there will be exposure to silica dust, then;**
  1. Where feasible, dust prevention by pre-wetting surfaces will take place.
  2. Employees will work on upwind side to maximize natural ventilation
  3. Periodic air monitoring will take place to determine exposure levels.
  4. Employee training with regards to silicosis prevention will take place.
  5. Enforcement of the Respiratory Protection Plan will take place.
  6. Record keeping will be required.

- **If a projects initial assessment concludes that there will be no exposure or exposure well below the allowable level(by review of historical data for similar activities) set forth by OSHA, then;**
  1. Employee training with regards to silicosis prevention will take place.
  2. Respirator protection will be voluntary although recommended by the Company for any dust generating activities.
  3. Ongoing assessment of activities to determine if exposure levels may have increased. Steps 1 thru 5 may now be required.

END OF PROCEDURE

APPENDIX A TABLE 1

§1926.1153 Respirable crystalline silica.

(c) Specified exposure control methods. (1) For each employee engaged in a task identified on Table 1, the employer shall fully and properly implement the engineering controls, work practices, and respiratory protection specified for the task on Table 1, unless the employer assesses and limits the exposure of the employee to respirable crystalline silica in accordance with paragraph (d) of this section.

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

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(i) 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
(ii) Handheld power saws (any blade diameter)	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. – When used outdoors. – When used indoors or in an enclosed area.	 None APF 10	 APF 10 APF 10
(iii) 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
(iv) Walk-behind 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. – When used outdoors. – When used indoors or in an enclosed area.	 None APF 10	 None APF 10
(v) 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
(vi) 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 emissions.	None	None
(vii) 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
(viii) 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.	APF 10	APF 10

APPENDIX A **TABLE 1**

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(ix) 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. OR Operate from within an enclosed cab and use water for dust suppression on drill bit.	None None	None None
(x) Jackhammers and handheld powered chipping tools	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact. – When used outdoors. – When used indoors or in an enclosed area. OR 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. – When used outdoors. – When used indoors or in an enclosed area.	None APF 10 None APF 10	APF 10 APF 10 APF 10 APF 10
(xi) 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.	APF 10	APF 25
(xii) 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. OR 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. – When used outdoors. – When used indoors or in an enclosed area.	None None None	None None APF 10

APPENDIX A **TABLE 1**

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(xiii) 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. OR Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust 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.	None None	None None
(xiv) 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
(xv) 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. 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. OR 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 None	None None None
(xvi) 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

APPENDIX A **TABLE 1**

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(xvii) 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. When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.	None None	None None
(xviii) 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. OR When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None None	None None

(2) When implementing the control measures specified in Table 1, each employer shall:

(i) For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust;

(ii) For tasks performed using wet methods, apply water at flow rates sufficient to minimize release of visible dust;

(iii) For measures implemented that include an enclosed cab or booth, ensure that the enclosed cab or booth:

(A) Is maintained as free as practicable from settled dust;

(B) Has door seals and closing mechanisms that work properly;

(C) Has gaskets and seals that are in good condition and working properly;

(D) Is under positive pressure maintained through continuous delivery of fresh air;

(E) 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); and

(F) Has heating and cooling capabilities.

(3) Where an employee performs more than one task on Table 1 during the course of 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.

Drug And Alcohol Testing Policy (For CDL Drivers)

Purpose:

To establish a drug and alcohol testing program for designated CDL company drivers to help prevent accidents and injuries resulting from the misuse of alcohol and drugs by employees of this company. This policy was originally formulated to contain similar standards as those set forth by the U.S. Department of Transportation Regulations published as 49 CFR Part 40, and 49 CFR Part 382.

Applicability:

This policy applies to all employees of the company designated as NYSDOT CDL drivers.

Objectives:

To establish rules and procedures to deter all illegal drug use by company employees.

To deter impairment caused by drug and/or alcohol use stemming from pre-duty or on-duty use of these substances. It is also intended to prevent accidents or injuries that may be caused by such impairment that could occur while on duty, during training, at meetings, or when on the premises of the company or in use of its equipment at any other time.

To detect and therefore eliminate the possibility that employees will perform their duty as an employee including attending their training or meetings, or be on the premises of the company or in use of the company equipment after testing positive for alcohol or drugs.

To provide reasonable measures for the early detection of personnel not fit to perform activities within the scope of their duties as an employee of this company.

To maintain a workplace free of drugs and alcohol.

To inform employees through education, in service training and other appropriate forums, about illegal drugs, and alcohol abuse, their use, possession, distribution, and the effects of such substances and alcohol abuse.

Definitions:

Alcohol

The intoxicating agent in beverage alcohol, ethyl alcohol, or other low molecular weight alcohols, including methyl and isopropyl alcohol.

Definitions: (Continued)

Alcohol Concentration (or Content)

The alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath as indicated by an evidential breath test.

Alcohol Use

The consumption of any beverage, mixture, or preparation, including any medication containing alcohol.

Breath Alcohol Technician (BAT)

An individual who instructs and assists individuals in the alcohol testing process and operates an evidential breath testing device.

BAC

Blood Alcohol Concentration (BAC) is the content of alcohol in an individual's blood.

Confirmation Test

For alcohol testing, a second test following a screening test with a result of .02 or greater, that provides quantitative data of alcohol concentration. For controlled substance testing, a second analytical procedure to identify the presence of a specific drug or metabolite which is independent of the screening test and that uses a different technique and chemical principle from that of the screening test in order to ensure reliability and accuracy. Gas chromatography/mass spectrometry (GC/MS) is the only authorized confirmation method for cocaine, marijuana, opiates, amphetamines, and phencyclidine.

Evidential breath testing device (EBT)

A device approved by the National Highway Traffic Safety Administration (NHTSA) for the evidential testing of breath and placed on NHTSA's Conforming Product's List of Evidential Breath Measurement Devices.

Medical Review Officer (MRO)

A licensed physician responsible for receiving laboratory results generated by the Company's drug test program, who has knowledge of substance abuse disorders and has appropriate medical training to interpret and evaluate an individual's confirmed positive test result together with his or her medical history and any other relevant biomedical information.

Definitions: (Continued)

Prohibited Conduct

Conduct which is prohibited is described in Section VIII of this policy.

Refusal to submit

An employee is deemed to have refused to submit to a test if he/she: (1) fails to appear for any test within a reasonable time as determined by the Chief after being directed to do so by the Company; (2) fails to remain at the testing site until the testing process is complete; (3) fails to provide an adequate amount of breath for testing without an adequate medical explanation to be determined through a required medical evaluation; (4) fails to provide a sufficient amount of urine for drug testing when directed without an adequate medical explanation to be determined through a required medical evaluation; (5) in the case of a directly observed or monitored collection in a drug test, fails to permit the observation or monitoring of the provision of the specimen; (6) fails to complete and sign the breath alcohol testing form; (7) fails or declines to take a second test the Company or collector has directed the driver/employee to take; (8) fails to undergo a medical examination or evaluation as directed by the MRO as part of the verification process or as directed by the Company; (9) fails to undergo a medical examination or evaluation as directed by the Company in connection with the insufficient breath procedures outlined in section VI below; (10) fails to cooperate with any part of the testing process; or (11) a verified adulterated or substituted test result.

Screening Test

In alcohol testing, means an analytical procedure to determine whether an employee may have a prohibited concentration of alcohol in his or her system. In drug testing, an immunoassay procedure to eliminate “negative” urine specimens from further consideration.

Substance Abuse Professional

A substance abuse professional means a licensed physician (Medical Doctor or Doctor of Osteopathy), or a licensed or certified psychologist, social worker, employee assistance professional, or addiction counselor (certified by the National Association of Alcoholism and Drug Abuse Counselors Certification Commission) with knowledge of and clinical experience in the diagnosis and treatment of alcohol and drugs-related disorders.

Split Specimen

A part of the urine specimen that is sent to a first laboratory and retained unopened, and which is transported to a secondary laboratory in the event that the employee requests that it be tested following a verified positive test of the primary specimen or a verified adulterated or substituted test result.

Definitions: (Continued)

Dilute Specimen

A specimen with creatinine and specific gravity values that are lower than expected for human urine.

Testing:

There are several occasions when an individual will be subject to drug and alcohol screening tests pursuant to this policy. Prior to the administration of the following tests, the Company or its testing agent will notify the employee that the test is required under the Company Drug & Alcohol Testing Policy. The testing occasions shall include:

Pre-Employment Testing

Pre-employment testing is testing for drugs that the Company will administer after a conditional offer of employment has been extended and prior to any applicant's performance of any employee function.

Post-Accident/Post-Injury Testing

A post-accident/post-injury test is a test for alcohol and drugs administered following an accident/injury involving an employee while on duty, during training, at meetings, or when on the premises of the company or in use of its equipment at any other time.

The following incidents qualify a directly involved employee to be sent for such testing.

Any incident that occurs while the employee is on duty, during training, at meetings, or when on the premises of the company or in use of its equipment in which:

- Bodily injury is incurred by the employee
- An employee causes bodily injury to another person or is directly related to the cause of injury to any other person and medical treatment will, or is assumed will be sought outside of general first aid at the Company.
- An employee is involved in a motor vehicle accident in which one or more motor vehicles incurs disabling damage as a result of the accident, requiring the motor vehicle to be transported away from the scene by a tow truck or other motor vehicle.

The Company will, if possible, administer a post-accident alcohol test within 2 hours following the accident but in no event more than eight hours following the accident. The Company will call to have IMA administer a post-accident drug test within 32 hours following the accident. In the event that these time periods are not met, the Company will prepare and maintain on file a record stating the reasons the tests were not promptly administered.

Testing:

Post-Accident/Post-Injury Testing

An employee who is subject to post-accident testing shall remain readily available for such testing or may be deemed by the Company to have refused to submit to testing. This shall not be construed to require the delay of necessary medical attention for injured individuals following an accident or to prohibit an employee from leaving the scene of an accident for the period necessary to obtain assistance in responding to the accident or to obtain necessary emergency medical care.

The results of a breath or blood test for the use of alcohol or a urine or blood test for the use of drugs, conducted by federal, state or local officials having independent authority for the test, shall be considered to meet the requirements of the policy concerning post-accident testing provided such tests conform to applicable federal, state or local requirements and that the results of the test are obtained by the Company.

Random Testing

Random testing is unannounced testing for alcohol and drugs administered in a statistically random manner throughout the year to employees of the Company in ratios as determined by the Company, so that all employees have an equal probability of selection each time a random test is administered. Tests will only be administered when the employee is deemed to be on duty, during training, at meetings, or when on the premises of the company or in use of its equipment at any other time.

Reasonable Suspicion Testing

Reasonable suspicion testing is alcohol and drug testing that the Company will conduct when it has reasonable suspicion to believe that an employee has engaged in conduct prohibited by this policy. Reasonable suspicion testing will not be conducted based upon the suspicion that an employee has violated the provision of this policy prohibiting covered employees from being on-duty or operating commercial motor vehicles while the driver possesses unmanifested alcohol. Reasonable suspicion must be based upon specific, contemporaneous, articulable observations concerning the appearance, behavior, speech, or body odors of an employee by a Company supervisor or official who has received required training to recognize probable alcohol misuse or drug use.

The Company will, if possible, administer a reasonable suspicion alcohol and/or drug test within 2 hours of the reasonable suspicion determination, but in no event more than eight (8) hours following the determination.

The Company will not permit any employee to report for duty or remain on duty while the employee is under the influence of, or impaired by, alcohol as shown by the behavioral, speech, and performance indicators of alcohol misuse, until an alcohol test is administered and the driver's blood alcohol concentration measures less than .02 or 24 hours have elapsed following a determination that reasonable suspicion exists to believe that the alcohol prohibitions of this policy have been violated.

Testing:

Return-To-Duty Testing

Return to duty testing is alcohol and drug testing conducted after an employee has engaged in prohibited conduct under this policy, completed counseling prescribed by a substance abuse professional, if any, and prior to his/her return to the Company. Before an employee may return to the Company, he/she must undergo return to duty testing with an alcohol test result indicating a BAC of less than .02 and a drug test indicating a verified negative result for drug use.

Follow-Up Testing

Follow-Up tests are given following a determination by the Substance Abuse Professional (SAP) that an employee is in need of assistance in resolving problems associated with misuses of alcohol and/or tested drugs. This is an unannounced test, given at least six (6) times within twelve (12) months with the actual frequency and number of tests determined by the SAP, but in no event may the follow up testing continue for a period beyond 60 months from the employee's return to duty. The SAP may terminate the requirement of follow-up testing at any time after the first six (6) tests have been administered if he/she determines that the follow-up testing is no longer necessary.

Split Specimens

As Company employee, when the MRO has notified you that you have a verified positive drug test or refusal to test because of adulteration or substitution, you have 72 hours from the time of notification to request a test of the split specimen.

Dilute Specimens

Option 1

When a negative dilute specimen is reported for pre-employment, reasonable suspicion, Return-to-Duty, or follow-up, the employee will be directed to take another test immediately.

Option 2

A negative dilute specimen shall be considered a negative test result.

Drug & Alcohol Testing Procedures:

Alcohol

Alcohol testing will be administered by a Breath Alcohol Technician (BAT) who has completed the equivalent of the Federal DOT's model course, as determined by the National Highway and Traffic Safety Administration and who is trained in utilizing an evidential breath testing device (EBT) that conforms to the Federal DOT requirements. The EBT used for testing shall meet the standards promulgated by the Federal DOT and have a quality assurance plan (QAP) developed by the manufacturer to insure proper calibration. Testing will be conducted in a location that affords visual and aural privacy to individuals being tested.

If the initial test reveals a BAC of .02 or greater, a confirmatory test must be performed. The completed confirmatory test result is the final test for the purposes of this policy. If the final test reveals a BAC greater than .02 but less than .04, the employee will not be permitted to work and will be suspended from performing safety-sensitive functions for 24 hours. If the BAC is .04 or greater, the employee will not be permitted to work and will be suspended from the Company for an indefinite period. (For an in-depth explanation of the alcohol testing procedures, please refer to 49 CFR part 40 Subpart C.)

Drugs

A Federal Company of Health and Human Services certified laboratory will perform drug testing on urine samples provided by employees. The drugs for which test will be conducted are:

1. Marijuana (THC)
2. Cocaine
3. Opiates
4. Amphetamines
5. Phencyclidine (PCP)

The cutoff levels for these drugs will be those set forth in the U.S. Company of Transportation Federal regulations.

The Company will contract with the certified laboratory to insure that the collection, shipment, testing and chain of custody procedures insure the integrity of the testing process in accordance with the procedures set forth in the regulations.

The split sample urine testing will be utilized. This method requires that the urine specimen be divided into two samples providing one sample for preliminary screening and initial confirmation, and a second sample for the second test if needed at a later date. The Company requires that the cost for testing this split sample will be the employee's responsibility if the employee elects to have the second sample tested and such test confirms a positive test result.

Drug & Alcohol Testing Procedures:

Disclosure of Test Results

The Company shall maintain records in a secure manner so that disclosure of information to unauthorized persons does not occur. The Company shall not release the tested drug and alcohol testing records except:

A. to the employee or his/her designee upon written request;
B. to the decision maker in a lawsuit, grievance or other proceeding initiated by or on behalf of the employee and arising from the results of mandatory testing pursuant to this policy;
C. to any agency with regulatory authority over the Company, upon request;
D. to the National Transportation Safety Board as part of an accident investigation upon request.

Uncompleted testing

If a screening or confirmation test cannot be completed, or if an event occurs that would invalidate the test, the BAT shall, if practicable, begin a new screening or confirmation test, as applicable, (e.g. using a new breath alcohol testing form with a new sequential test number in the case of a screening test conducted on an EBT that meets the requirements of 40.53(b) or in the case of a confirmation test.)

Records Retention/Test Results

- **Records Retention:** The Company is required to maintain records of its alcohol and drug abuse programs in a secure location with controlled access. The Company shall maintain the following records for five years (1) records of alcohol test results indicating a BAT of .02 or greater; (2) records of verified positive drug test results; (3) documentation of refusals to take required alcohol and/or drug tests; (4) calibration documentation; (5) driver evaluation and referrals; and (6) copies of annual calendar year summaries required under the regulations. Records related to the alcohol and drug collection process and training shall be maintained for a minimum of two years. Records of negative and cancelled drug test results and alcohol tests with concentration of less than .02 shall be maintained for one year.

- **Test results:** The Company shall notify an applicant of the results of a pre-employment drug test if the applicant requests such results within 60 calendar days of being notified of the disposition of the employment application. The Company shall notify an employee of the results of random, reasonable suspicion and post-accident drug tests if the test results are verified positive and which tested drug(s) were verified as positive.

Refusal To Submit To Testing:

An employee shall not refuse to submit to a post-accident alcohol or drug test required under this policy, a random alcohol or drug test required under this policy, a reasonable suspicion alcohol or drug test required under this policy, a return to duty alcohol or drug test, or a follow-up alcohol or drug test required under this policy. Any employee shall not be permitted to perform safety-sensitive functions subsequent to a refusal to submit a test required under the policy until the individual is evaluated by a substance abuse professional and completes a substance abuse program designed by the substance abuse professional, if any, and undergoes a return to duty alcohol test revealing a BAC of less than .02 and a drug test with a verified negative result. In other words, a refusal to submit to testing is the equivalent of an alcohol test revealing a BAC of .04 or greater or a drug test with a positive result. A refusal to be tested shall be defined as set forth in Section IV (10) of this policy and includes a refusal by an employee to complete and sign the breath alcohol testing form, to provide breath, to provide an adequate amount of breath, to provide an adequate amount of urine or otherwise to cooperate with the testing process in a way that prevents the completion of the test. The BAT or collector shall record such refusal in the remarks section of the form. The testing process shall then be terminated and the BAT or collector shall immediately notify the Company.

Prohibited Conduct

1. No employee shall work or report to work, including the performance of safety-sensitive functions, while under the influence of alcohol or drugs, or within four (4) hours of using alcohol.
2. No employee shall use, possess, distribute or dispense alcohol or drugs while on duty, including while on Company property or work sites or while operating equipment.
3. An employee required to take a post-accident alcohol test shall not use alcohol for eight (8) hours following the accident or until he/she undergoes a post-accident alcohol test, whichever occurs first.
4. No employee shall refuse to submit to a required alcohol or drug test conducted pursuant to this policy.
5. No employee shall report for duty, remain on duty, attend training, attend meetings, or be on the premises of the company or in use of its equipment at any time if the driver/employee tests positive for tested drugs.

***NOTE:** An employee may be permitted to work while using drugs or controlled substances provided that such use is pursuant to the instructions of a physician who has advised the employee that the drug does not affect the employee's ability to safely perform their duties as an employee. Written documentation of such instructions and advisement from the physician must be submitted to the Company by the employee immediately.

Referral, Evaluation And Treatment:

- The Company shall make available to the employee information regarding the resources available for evaluating and resolving problems associated with the misuse of alcohol and use of drugs, including the names, addresses, and telephone numbers of substance abuse professionals and counseling and treatment programs.

- An employee who engages in conduct prohibited by this policy shall be evaluated by a substance abuse professional who shall determine what assistance, if any, the employee needs in resolving problems associated with alcohol misuse and drug use. The costs associated with this evaluation are the responsibility of the employee and may be covered by the employee's health benefits plan, subject to the plan's conditions and limitations.

- Before an employee returns to duty after engaging in conduct prohibited by this Policy, the employee shall undergo a return to duty alcohol test with a result indicating an alcohol concentration of less than 0.02 if the conduct involved alcohol, or a drug test with a verified negative result if the conduct involved drugs.

- Each employee identified as needing assistance in resolving problems associated with alcohol misuse or drug use shall:

  A. be evaluated by a substance abuse professional to determine if the employee has properly followed any rehabilitation program prescribed under paragraph 2 of this policy;

  B. Shall be subject to unannounced follow-up alcohol and drug tests administered by the Company following the employee's return to duty. The number and frequency of the follow-up tests shall be directed by the substance abuse professional, and consist of at least six (6) test in the first twelve (12) months following the employee's return to duty. The Company may direct the employee to undergo return-to-duty and follow-up testing for both alcohol and drugs, if the substance abuse professional determines that return-to-duty and follow-up testing for both alcohol and drugs is necessary for that particular employee. Such testing shall be in conformance with this policy. Follow-up testing shall not exceed sixty (60) months from the date of the covered driver's return to duty. The substance abuse professional may terminate the requirement at any time after the first six (6) tests have been administered, if the substance abuse professional determines that such testing is no longer necessary.

  C. The evaluation and rehabilitation shall be provided by:

     - a substance abuse professional approved by the Company, or

     - A substance abuse professional selected by the employee. The employee shall be required to submit the Employer a written verification from the substance abuse professional that they meet the qualifications as set forth in Section IV – Substance Abuse Professional of this policy prior to receiving the evaluation and rehabilitation.

Referral, Evaluation And Treatment:

D. A substance abuse professional who determines that an employee requires assistance in resolving problems with alcohol misuse or drug use shall not refer the employee to the substance abuse professional's own private practice, or to a person or organization from which the substance abuse professional receives remuneration, or in which the substance abuse professional has a financial interest.

E. Costs affiliated with evaluation and treatment shall be the responsibility of the employee and may be covered by the employee's health benefits plan, subject to the plan's conditions and limitations.

Consequences For Employees:

Employees found to have violated prohibited conduct under this policy will be subject to disciplinary action. Any disciplinary action initiated will be administered in accordance with the Company policy.

Employees found to have a BAC of .02 or greater but less than .04 as measured by an alcohol test shall be advised to seek assistance and/or counseling from a substance abuse professional.

Employees found to have a BAC of .04 or above or a positive drug test shall be to be evaluated by a substance abuse professional and to complete any treatment determined to be necessary by the substance abuse professional before any return-to-work can be considered.

No employee shall perform the duties of an employee, if such individual has engaged in conduct prohibited by this policy.

Employee Notification:

The Company shall provide a copy of this policy to each employee and to his/her collective bargaining agent. Each employee is required to sign a statement certifying that he/she has received this information. The Company shall maintain the original signed certification as a permanent part of the personnel file. The Company will provide a copy of the certification to the employee upon request.

Savings Clause:

If any provision of this policy is determined in a tribunal of competent jurisdiction to be inconsistent with any superseding legal requirements, that provision shall be considered modified or deleted so as to comply with the superseding legal requirements, without any effect on the remaining policy provisions.

END OF PROCEDURE

Employee Forms and Acknowledgements

The following pages includes employee forms and acknowledgements the demonstrate VCC's initiative to get all employees on board with the Company's effort to communicate the hazards that exist and educate the employee on the importance of recognizing these hazards. VCC will provide all the PPE and safety devices at no cost to the employee.

Ultimately it is the employee's responsibility to actively and sincerely embrace VCC's commitment to eliminating accidents, incidents and hazards from our jobsite.

The forms included here are the most commonly used on our projects. Other forms may exist or may need to be created for job specific hazards that may develop.

The following forms or acknowledgements are included herein:

Employee Responsibilities and Consequences
Company Safety Initiative
100% Fall Protection
Motor Vehicles "Rules of the Road"
Appendix D- Respirators
Safety Meeting (Tool Box Talks) Attendance Sheet

EMPLOYEE RESPONSIBILITIES AND CONSEQUENCES

All Vector Construction employees are expected to work all days required, show up on time, and work together to create a safe job site environment that is free from any form of harassment.

Employee failure to comply with the following will be cause for disciplinary action:

All safety regulations. These include safety policies as identified in the Vector Construction Company Safety Program, Site Specific safety requirements, OSHA regulations, safety meetings, and directions given by supervisors.

You MUST have the following:

1. You must have steel toe work boots. You must wear long pants and shirt.
2. You will be given a hardhat, safety vest, and personal protection equipment.

Company policies regarding Racial and Sexual Harassment, Alcohol and Drug Use, and common civility toward all crew members.

Vector Construction attendance policy: All employees are expected to work every day, from the beginning of the construction season until layoff, as required. This may include overtime, weekend work, and night work. The start of the work day will be defined by the job site management. All employees will be expected to begin at that time unless told otherwise. All time off (full days or any portion of a day) must be for a valid reason and must be preapproved.

Disciplinary action may include a warning, day(s) off without pay, or immediate dismissal. Multiple warnings and or days off will result in dismissal.

Signature _____ Date _____

SAFETY INITIATIVE

Objectives:

Vector Construction Corporation is committed to providing a safe work environment for all employees. It is a group effort that requires continuous awareness of all the hazards that may be present on any jobsite. All employees must cooperate in an effort to eliminate potential hazards before they develop. We expect everyone to work as a team in maintaining a safe, productive and organized jobsite.

It is our goal to reduce and or eliminate all accidents on all of our jobsites. We encourage input from all employees regarding how we may improve safety and productivity on our jobsites.

Employee Responsibilities:

1. Comply with company safety rules and regulations. A copy of Vector's Company Safety Plan is located on all jobsites. A personal copy can be mailed to you at your request.
2. Utilize personal protective equipment when required.
3. Report all accidents or injuries to your supervisor immediately (no matter how small).
4. Maintain good housekeeping practices at all times.

SAFETY COMPLIANCE ACKNOWLEDGEMENT

I agree to comply and participate in the Company Safety Initiative. This includes complying with company safety rules and regulations.

I understand that refusal to comply will result in the following disciplinary action:

1st offense: *Verbal Warning*

2nd offense: *Written warning with 1 day layoff without pay*

3rd offense: *Termination of employment*

Signature _____ Date _____

100% Fall Protection Initiative

Vector Construction Corporation expects all jobsites to operate under a 100% Fall protection condition.

What does this mean? This means that whenever there is a height exposure of 6ft or greater on our jobsites than the following **must** occur.

a. Proper scaffold including top rail, mid rail and toeboard must be installed. Safe entry and exit points must be provided. Returns on walkways must be installed.
b. Lifelines must be properly installed, and safety harnesses with double lanyards must be used so employee can be connected 100% percent of time.
c. Areas not being worked in, where a height exposure exists, must be clearly delineated with an adequate barrier system, 6 ft from the leading edge. All employees must be aware that this as a non-work area and area cannot be used to go to or from another area. This is usually a temporary condition during a stage of construction. Any long term condition must be addressed with a more permanent fall protection technique.
d. Harnesses, lanyards, lifelines must be inspected daily when in use to identify any corrective action or replacement of any of the safety devices that have been compromised.

At no time on any project should any of us take a short cut in an effort to save time or money on a project. In other words, we need to plan ahead so we are prepared to take the necessary steps to protect all sites and perform our work safely. IF WE ARE NOT PREPARED, and an unsafe situation develops, WE MUST TAKE THE TIME TO DO IT CORRECTLY and SAFELY REGARDLES IF IT IMPACTS SCHEDULE OR PRODUCTION.

Employee Signature _____ Date _____

MOTOR VEHICLE "RULES OF THE ROAD"

Purpose/Rational:

Company owned vehicles are used daily in our operations. In order to protect our employees, clients and the general public, established safe operations procedures must be followed by ALL drivers. All employees driving on behalf of the company are required to operate their vehicles safely and legally at all times.

The following "Rules of the Road' are effective immediately and are to be adhered to whenever operating a vehicle for business purposes – regardless of vehicle ownership.

All newly hired personnel, authorized to drive as part of their duties must acknowledge receipt of his directive prior to operating a vehicle on behalf of Vector Construction Corporation and its affiliates.

General Rules:

1. Vehicles owned or leased by the company are to be used only for company business unless proper authorization is granted.
2. ONLY company employees who have been preauthorized to operate vehicles for the company are authorized to drive for company purposes (herein referred to as "Drivers"). The ONLY exception to this is when injury and/or death is imminent and the vehicle must be operated by others in an emergency.
3. Driver's assigned vehicles are responsible for timely and routine maintenance and are to notify their supervisor of any repairs that may be necessary.
4. All drivers are required to abide by all federal, state and local motor vehicle regulations, laws and ordinances.
5. All fines, defense costs and other legal penalties arising out of ticketed offenses due to driver's negligence will be the responsibility of the driver.

On The Road:

1. A driver may not operate a vehicle at any time when his/her ability is impaired, affected, or influenced by alcohol, illegal drugs, medication, illness, fatigue or injury.
2. No driver may have or permit possession of alcohol or illegal drugs in a vehicle being used for business purposes.
3. The driver and all occupants are required to wear safety belts when operating or riding in a vehicle. The driver is responsible to ensure all passengers are wearing their safety belts at all times.
4. Only authorized/approved passengers (i.e.: those with defined business relationship) are permitted in the vehicles during the course of business use.
5. Drivers shall not pick-up hitchhikers
6. Drivers shall not accept direct payment for carrying passengers or materials except as directed by your superiors.

On The Road: (Continued)

7. Drivers shall not use any radar detector, laser detector or similar devices.
8. Drivers shall not push or pull another vehicle or tow a trailer without authorization.
9. Drivers shall not transport flammable liquids and gases unless a DOT or UL approved container is utilized, and only then in limited quantities and only when necessary.
10. Drivers shall not assist disabled motorists or accident victims beyond the level of their medical training: EMT, CPR, Basic First-Aid, etc. If a driver is not qualified to provide the above services, he/she must restrict his/her assistance to calling the proper authorities.

Mobile Telephone Usage Policy:

Purpose: This policy implements the Federal Motor Carrier Safety Administration's (FMCSA) rule restricting the use of hand-held mobile telephones by drivers of commercial motor vehicles* (CMV).

Scope: All drivers of CMVs and any other Vector Construction owned motor vehicle.

Policy: All drivers of CMVs are prohibited from:

- Reaching for, dialing, or holding a mobile telephone while driving
- Initiating a call on a mobile telephone while driving, unless initiation of a call can be made by voice activation without the pushing of more than one button
- Texting, emailing, messaging, and accessing a World Wide Web page or any application on a mobile telephone while driving
- Answering a call on any mobile telephone while driving that requires the pushing of more than one button

Driving is defined as operating a CMV on a highway, including while temporarily stationary because of traffic, a traffic control device, or other momentary delays. Driving does not include operating a CMV when the driver has moved the vehicle to the side of, or off, a highway and has halted in a location where the vehicle can remain safely stationary. A mobile telephone is defined as a mobile communication device that falls under or uses any commercial mobile radio service as defined by the FCC and does not include two-way or CB radios.

The use of a hands free-device is allowed only if the hands-free headset is within reach while the driver is properly restrained by a seat belt. In addition, the push-to-talk feature is permitted to be used only if the mobile telephone is mounted in a cradle or similar device near the driver, or there is a remote push-to-talk button near the vehicle controls that allows the driver to communicate without reaching for, dialing, or holding the actual mobile telephone in his/her hands while driving.

When one of the above-referenced exceptions applies, all mobile telephone communications while driving must still be limited to business communications that are essential to the job and must be limited in duration so as to allow only for the transmission of necessary information.

Emergency exception: Using a hand-held mobile telephone is allowed when necessary to communicate with law enforcement officials or other emergency services.

Mobile Telephone Usage Policy: (Continued)

Violation of this policy may result in discipline up to and including termination. Drivers may also be subject to penalties, including fines or suspensions, and/or driver disqualification assessed by law enforcement and the FMSCA.

All CMV drivers must also follow any state or local laws regarding mobile telephone usage. This policy shall take precedence over any less stringent state or local regulations.

* A CMV is defined as a vehicle used on a highway to transport passengers or property that has a gross weight rating or gross combination weight rating, or gross vehicle weight rating or gross combination weight of 4,536 kg (10,001 pounds) or more, whichever is greater; or is designed to transport more than 8 passengers, including the driver, for compensation; or is designed to transport more than 15 passengers, including the driver, not for compensation; or is transporting hazardous material as designated under 49 U.S.C. 5103 and transported in a quantity requiring placarding under Title 49.

Post-Trip:

1. All accidents, vehicle problems or defects must be reported immediately to your immediate supervisor.
2. Drivers are required to notify their supervisor of any tickets, accidents or other violations they have received while driving company vehicles. Notification must be as soon as reasonably possible but in no way, later than the next scheduled driving duty to be performed.

Acknowledgment:

I have received, read and understand these rules. For the safety and well-being of myself, my customers and the general public, I agree to adhere to these rules at all times. I also understand that failure to follow these practices can result in disciplinary measures up to and including dismissal.

I understand that when using company vehicles, a valid driver's license is required.

By signing this acknowledgement the Company reserves the right to perform a Motor Vehicle background check to validate this license.

VALID DRIVERS LICENSE #: _____

_____ _____

Signature Date

YOU MUST ACKNOWLEDGE RECEIPT OF THIS DOCUMENT. If you do not have a valid driver's license please indicate so above by writing the word "NONE" where your license number would go and sign and date.

APPENDIX D TO SEC. 1910.134
INFORMATION FOR EMPLOYEES USING RESPIRATORS WHEN NOT REQUIRED UNDER THE STANDARD

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.

2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's.

Signature _____ Date _____

SAFETY MEETING ATTENDENCE SHEET

PROJECT NO: _____ W/E DATE: _____

COUNTY: _____

SUPERVISOR: _____

SUBJECT: _____ TOOL BOX TALK #: _____

NAMES OF EMPLOYEES ATTENDING:

OHSA QUICK CARDS

OSHA Quick Cards

OSHA® QUICK CARD™

Aerial Lifts

Protect Yourself

Aerial lifts are vehicle-mounted, boom-supported aerial platforms, such as cherry pickers or bucket trucks, used to access utility lines and other above-ground job sites. The major causes of fatalities are falls, electrocutions, and collapses or tip overs. Employers must take measures to ensure the safe use of aerial lifts by their workers if they are required to use this equipment in the course of their employment.

Safe Work Practices

- Make sure that workers who operate aerial lifts are properly trained in the safe use of the equipment.
- Maintain and operate elevating work platforms according to the manufacturer's instructions.
- Never override hydraulic, mechanical, or electrical safety devices.
- Never move the equipment with workers in an elevated platform unless this is permitted by the manufacturer.
- Do not allow workers to position themselves between overhead hazards, such as joists and beams, and the rails of the basket. Movement of the lift could crush the worker(s).
- Maintain a minimum clearance of at least 10 feet, or 3 meters, away from the nearest energized overhead lines.
- Always treat power lines, wires and other conductors as energized, even if they are down or appear to be insulated.
- Use a body harness or restraining belt with a lanyard attached to the boom or basket to prevent the worker(s) from being ejected or pulled from the basket.
- Set the brakes and use wheel chocks when on an incline.
- Use outriggers, if provided.
- Do not exceed the load limits of the equipment. Allow for the combined weight of the worker, tools and materials.

For more information:

OSHA® Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

OSHA 3267-04R-13

OSHA® QUICK CARD™

Aerial Lift Fall Protection
Over Water in Shipyards

Aerial lifts are often used in shipyards and boatyards when erection of staging is impractical. These boom-supported personnel platforms and bucket trucks (i.e., cherry pickers) may cause worker injuries or deaths. Boom failure, tip-over, falls and ejection may occur if the equipment is not properly used.

Employers must take measures to ensure a safe work environment by providing:

- Safe and adequately maintained equipment
- Proper supervision and training
- Fall protection
- Prompt rescue in the event of a fall

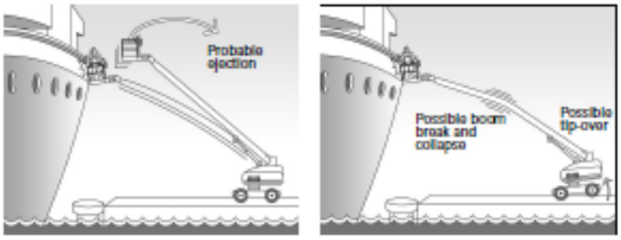
Safe Work Practices

- Always tie-off.
- Wear a body harness with a lanyard attached to an adequate anchorage point.
- Never move the lift with workers elevated.
- Train operators to safely operate equipment.
- Maintain and operate equipment in accord with the manufacturer's instructions.
- Ensure that equipment controls are properly marked.
- Never override safety devices. Overriding may lead to accidental or inadvertent movement of the basket or lift.
- When a lift is on a barge, be aware of the list, trim and lash down points.
- Place stops to prevent driving off when a lift is near open edges and capable of movement.
- Know the swing radius to ensure that the aerial lift will not hit nearby structures as it moves.
- When elevated, never get between structures and the lift. MOVEMENT COULD CRUSH THE WORKER.
- To prevent tip-overs, it is important to:
  - set brakes
  - use wheel chocks
  - check tire pressure
  - extend outriggers
  - ensure lift is level (front/back/sides)
  - never operate in high winds
  - never operate under power lines

Remember

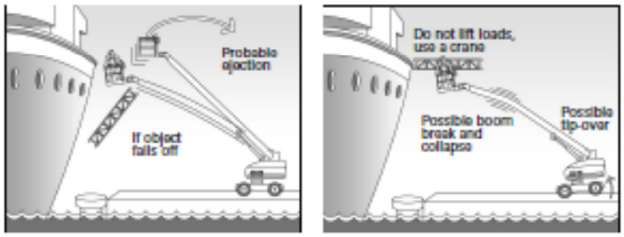
- A Personal Flotation Device (PFD) alone will not help if a worker falls from heights of more than 40 feet to the water, or onto objects below (camels, floats, punts, fenders, or large floating objects). **Always tie-off.**
- If a lift gets caught on an object or lines, it may cause an ejection when it comes loose.
- Never lift, push or move objects with an aerial lift; this action may cause collapse, tip-over, or ejection.
- Never exceed load capacity with the combined weight of the worker, tools and light materials. The extra weight may cause a collapse or tip-over.
- The lift capacity is reduced when the lift is not level, tire pressure is low, or the outriggers are not fully extended. These conditions may cause a tip-over.

Basket Hang-Up on Ship While Being Raised



- Half of all fatal falls from aerial lifts occur when workers are not tied off. One worker was ejected 80 feet from an aerial lift.
- Improper set-up, operation, or exceeding weight capacity account for twice as many aerial lift fatal falls as mechanical failure.

Lifting Heavy Objects Exceeds Load Capacity of Basket



You have a right to a safe workplace.
If you have questions about workplace safety and health, call OSHA at 1-800-321-6742.
It's confidential. We can help!

For more information:

OSHA® Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

OSHA 3452-03-11N

OSHA QUICK CARD™

Protect Yourself

Carbon Monoxide Poisoning

Carbon monoxide (CO) is a colorless, odorless, toxic gas which interferes with the oxygen-carrying capacity of blood. CO is non-irritating and can overcome persons without warning. Many people die from CO poisoning, usually while using gasoline powered tools and generators in buildings or semi-enclosed spaces without adequate ventilation.

Effects of Carbon Monoxide Poisoning

- Severe carbon monoxide poisoning causes neurological damage, illness, coma and death.

Symptoms of CO exposure

- Headaches, dizziness and drowsiness.
- Nausea, vomiting, tightness across the chest.

Some Sources of Exposure

- Portable generators/generators in buildings.
- Concrete cutting saws, compressors.
- Power trowels, floor buffers, space heaters.
- Welding, gasoline powered pumps.

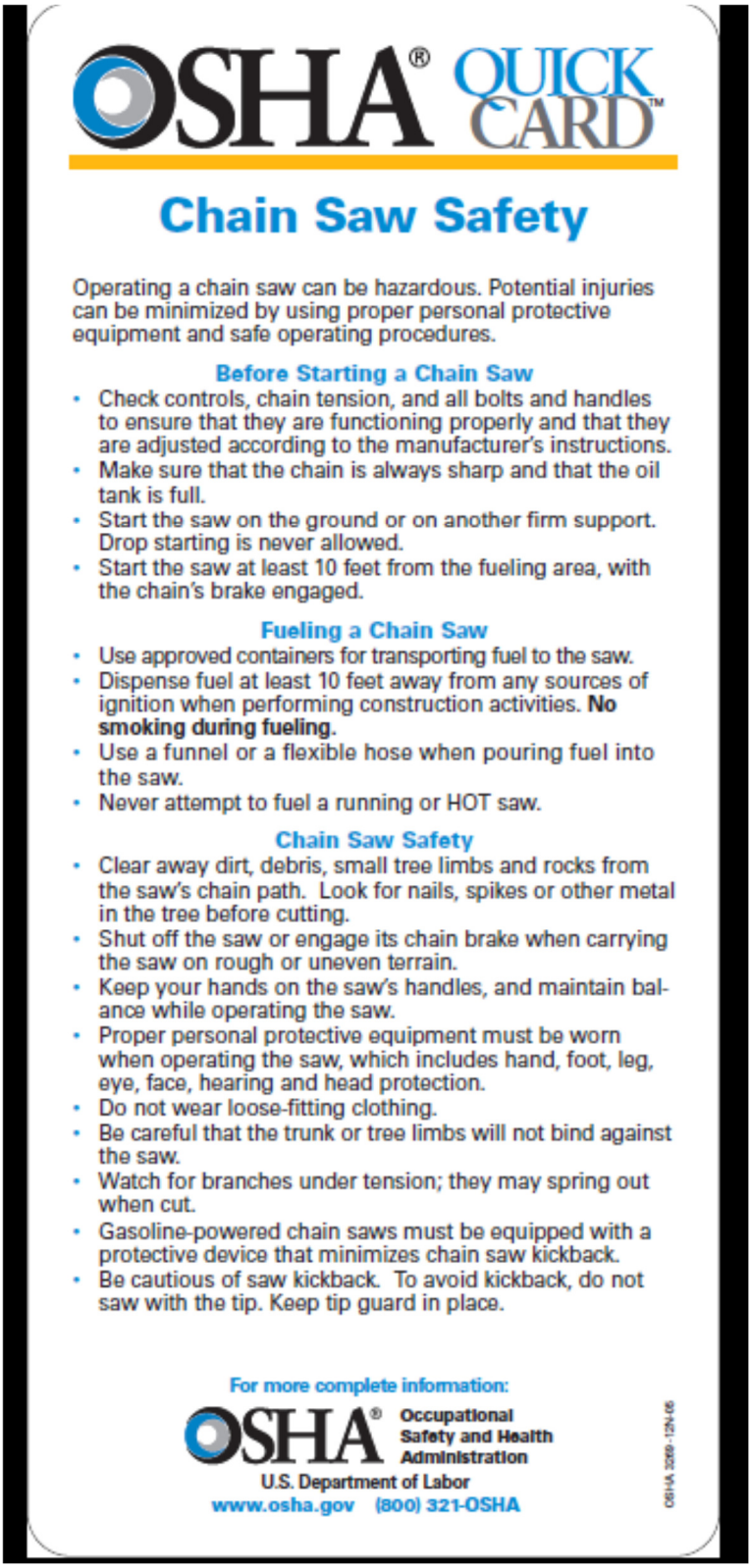
Preventing CO Exposure

- Never use a generator indoors or in enclosed or partially enclosed spaces such as garages, crawl spaces, and basements. Opening windows and doors in an enclosed space may prevent CO buildup.
- Make sure the generator has 3-4 feet of clear space on all sides and above it to ensure adequate ventilation.
- Do not use a generator outdoors if placed near doors, windows or vents which could allow CO to enter and build up in occupied spaces.
- When using space heaters and stoves ensure that they are in good working order to reduce CO buildup, and never use in enclosed spaces or indoors.
- Consider using tools powered by electricity or compressed air, if available.
- If you experience symptoms of CO poisoning get to fresh air right away and seek immediate medical attention.

For more complete information:

OSHA Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA 3252-10N-05



OSHA® QUICK CARD™

Chain Saw Safety

Operating a chain saw can be hazardous. Potential injuries can be minimized by using proper personal protective equipment and safe operating procedures.

Before Starting a Chain Saw

- Check controls, chain tension, and all bolts and handles to ensure that they are functioning properly and that they are adjusted according to the manufacturer's instructions.
- Make sure that the chain is always sharp and that the oil tank is full.
- Start the saw on the ground or on another firm support. Drop starting is never allowed.
- Start the saw at least 10 feet from the fueling area, with the chain's brake engaged.

Fueling a Chain Saw

- Use approved containers for transporting fuel to the saw.
- Dispense fuel at least 10 feet away from any sources of ignition when performing construction activities. **No smoking during fueling.**
- Use a funnel or a flexible hose when pouring fuel into the saw.
- Never attempt to fuel a running or HOT saw.

Chain Saw Safety

- Clear away dirt, debris, small tree limbs and rocks from the saw's chain path. Look for nails, spikes or other metal in the tree before cutting.
- Shut off the saw or engage its chain brake when carrying the saw on rough or uneven terrain.
- Keep your hands on the saw's handles, and maintain balance while operating the saw.
- Proper personal protective equipment must be worn when operating the saw, which includes hand, foot, leg, eye, face, hearing and head protection.
- Do not wear loose-fitting clothing.
- Be careful that the trunk or tree limbs will not bind against the saw.
- Watch for branches under tension; they may spring out when cut.
- Gasoline-powered chain saws must be equipped with a protective device that minimizes chain saw kickback.
- Be cautious of saw kickback. To avoid kickback, do not saw with the tip. Keep tip guard in place.

For more complete information:

OSHA® Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA 3269-12N-05

OSHA® QUICK CARD™

Permit-Required Confined Spaces in General Industry

A confined space has limited openings for entry or exit, is large enough for entering and working, and is not designed for continuous worker occupancy. Confined spaces include underground vaults, tanks, storage bins, manholes, pits, silos, underground utility vaults and pipelines. See 29 CFR 1910.146.

Permit-required confined spaces are confined spaces that:

- May contain a hazardous or potentially hazardous atmosphere.
- May contain a material which can engulf an entrant.
- May contain walls that converge inward or floors that slope downward and taper into a smaller area which could trap or asphyxiate an entrant.
- May contain other serious physical hazards such as unguarded machines or exposed live wires.
- Must be identified by the employer who must inform exposed employees of the existence and location of such spaces and their hazards.

What to Do

- Do not enter permit-required confined spaces without being trained and without having a permit to enter.
- Review, understand and follow employer's procedures before entering permit-required confined spaces and know how and when to exit.
- Before entry, identify any physical hazards.
- Before and during entry, test and monitor for oxygen content, flammability, toxicity or explosive hazards as necessary.
- Use employer's fall protection, rescue, air-monitoring, ventilation, lighting and communication equipment according to entry procedures.
- Maintain contact at all times with a trained attendant either visually, via phone, or by two-way radio. This monitoring system enables the attendant and entry supervisor to order you to evacuate and to alert appropriately trained rescue personnel to rescue entrants when needed.

You have a right to a safe workplace.
If you have questions about workplace safety and health, call OSHA.
It's confidential. We can help!

For more information:

OSHA® Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

OSHA 3214-09R-11

OSHA QUICK CARD™

Top Four
Construction Hazards

The top four causes of construction fatalities are: Falls, Struck-By, Caught-In/Between and Electrocutions.

Prevent Falls

- Wear and use personal fall arrest equipment.
- Install and maintain perimeter protection.
- Cover and secure floor openings and label floor opening covers.
- Use ladders and scaffolds safely.

Prevent Struck-By

- Never position yourself between moving and fixed objects.
- Wear high-visibility clothes near equipment/vehicles.

Prevent Caught-In/Between

- Never enter an unprotected trench or excavation 5 feet or deeper without an adequate protective system in place; some trenches under 5 feet deep may also need such a system.
- Make sure the trench or excavation is protected either by sloping, shoring, benching or trench shield systems.

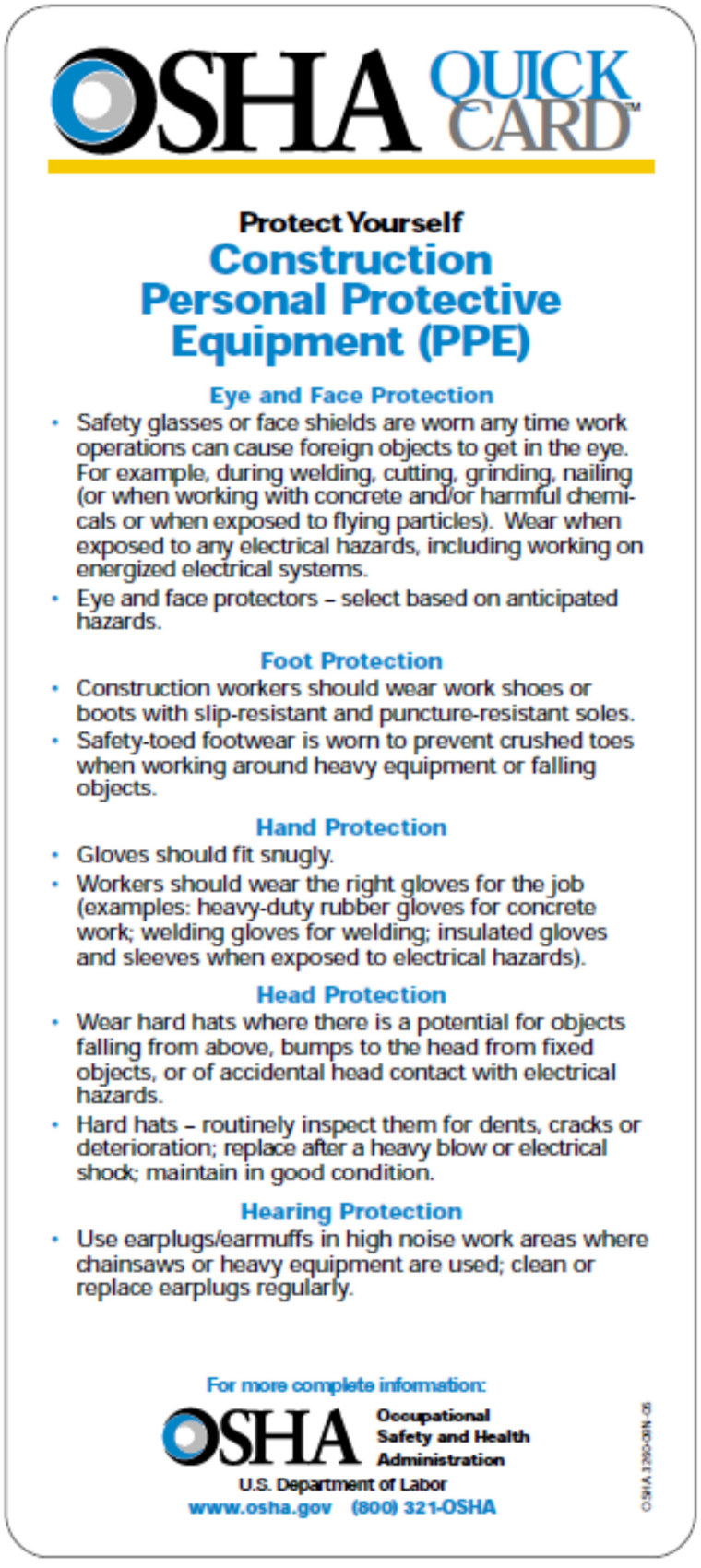
Prevent Electrocutions

- Locate and identify utilities before starting work.
- Look for overhead power lines when operating any equipment.
- Maintain a safe distance away from power lines; learn the safe distance requirements.
- Do not operate portable electric tools unless they are grounded or double insulated.
- Use ground-fault circuit interrupters for protection.
- Be alert to electrical hazards when working with ladders, scaffolds or other platforms.

For more complete information:

OSHA Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA 3216-4N-08



OSHA QUICK CARD™

Protect Yourself

Construction Personal Protective Equipment (PPE)

Eye and Face Protection

- Safety glasses or face shields are worn any time work operations can cause foreign objects to get in the eye. For example, during welding, cutting, grinding, nailing (or when working with concrete and/or harmful chemicals or when exposed to flying particles). Wear when exposed to any electrical hazards, including working on energized electrical systems.
- Eye and face protectors – select based on anticipated hazards.

Foot Protection

- Construction workers should wear work shoes or boots with slip-resistant and puncture-resistant soles.
- Safety-toed footwear is worn to prevent crushed toes when working around heavy equipment or falling objects.

Hand Protection

- Gloves should fit snugly.
- Workers should wear the right gloves for the job (examples: heavy-duty rubber gloves for concrete work; welding gloves for welding; insulated gloves and sleeves when exposed to electrical hazards).

Head Protection

- Wear hard hats where there is a potential for objects falling from above, bumps to the head from fixed objects, or of accidental head contact with electrical hazards.
- Hard hats – routinely inspect them for dents, cracks or deterioration; replace after a heavy blow or electrical shock; maintain in good condition.

Hearing Protection

- Use earplugs/earmuffs in high noise work areas where chainsaws or heavy equipment are used; clean or replace earplugs regularly.

For more complete information:

OSHA Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA 3260-06N-06

OSHA® QUICK CARD™

Demolition Safety

Demolition work involves many of the same hazards that arise during other construction activities. However, demolition also involves additional hazards due to a variety of other factors. Some of these include: lead-based paint, sharp or protruding objects and asbestos-containing material.

- Brace or shore up the walls and floors of structures which have been damaged and which employees must enter.
- Inspect personal protective equipment (PPE) before use.
- Select, wear and use appropriate PPE for the task.
- Inspect all stairs, passageways, and ladders; illuminate all stairways.
- Shut off or cap all electric, gas, water, steam, sewer, and other service lines; notify appropriate utility companies.
- Guard wall openings to a height of 42 inches; cover and secure floor openings with material able to withstand the loads likely to be imposed.
- Floor openings used for material disposal must not be more than 25% of the total floor area.
- Use enclosed chutes with gates on the discharge end to drop demolition material to the ground or into debris containers.
- Demolition of exterior walls and floors must begin at the top of the structure and proceed downward.
- Structural or load-supporting members on any floor must not be cut or removed until all stories above that floor have been removed.
- All roof cornices or other ornamental stonework must be removed prior to pulling walls down.
- Employees must not be permitted to work where structural collapse hazards exist until they are corrected by shoring, bracing, or other effective means.

For more complete information:

OSHA® Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA 3250-11N-05

OSHA® QUICK CARD™

Electrical Safety

Electrical hazards can cause burns, shocks and electrocution (death).

- Assume that all overhead wires are energized at deadly voltages. Never assume that a wire is safe to touch even if it is down or appears to be insulated.
- Never touch a fallen overhead power line. Call the electric utility company to report fallen electrical lines.
- Stay at least 10 feet (3 meters) away from overhead wires during cleanup and other activities. If working at heights or handling long objects, survey the area before starting work for the presence of overhead wires.
- If an overhead wire falls across your vehicle while you are driving, stay inside the vehicle and continue to drive away from the line. If the engine stalls, do not leave your vehicle. Warn people not to touch the vehicle or the wire. Call or ask someone to call the local electric utility company and emergency services.
- Never operate electrical equipment while you are standing in water.
- Never repair electrical cords or equipment unless qualified and authorized.
- Have a qualified electrician inspect electrical equipment that has gotten wet before energizing it.
- If working in damp locations, inspect electric cords and equipment to ensure that they are in good condition and free of defects, and use a ground-fault circuit interrupter (GFCI).
- Always use caution when working near electricity.

For more information:

OSHA® Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov (800) 321-OSHA (6742)

OSHA 3254 -04R-13

OSHA® QUICK CARD™

Fall Protection in General Industry

Falls are among the most common causes of serious work-related injuries and deaths. Employers must take measures in their workplaces to prevent employees from falling off overhead platforms, elevated work stations or into holes in the floor and walls.

Raised platform with protected guardrail.

To prevent employees from being injured from falls, employers must:

- Guard every floor hole into which a worker can accidentally walk by use of a railing and toeboard or a floor hole cover.
- Provide a guardrail and toeboard around every open-sided platform, floor or runway that is 4 feet or higher off the ground or next level.
- Regardless of height, if a worker can fall into or onto dangerous machines or equipment (such as a vat of acid or a conveyor belt), employers must provide guardrails and toeboards to prevent workers from falling and getting injured.
- Other means of fall protection that may be required on certain jobs include safety harness and line, safety nets, stair railings and handrails.

OSHA requires employers to:

- Provide working conditions that are free of known dangers.
- Keep floors in work areas in a clean and sanitary condition.
- Select and provide required personal protective equipment at no cost to workers.
- Train workers about job hazards in a language that they can understand.

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It's confidential.

We can help!

For more complete information:

OSHA® Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov (800) 321-OSHA (6742)

OSHA 3257-12-10R

OSHA QUICK CARD™

Protect Yourself

Lead in Construction

Lead is a common hazardous element found at many construction sites. Lead exposure comes from inhaling fumes and dust, and lead can be ingested when hands are contaminated by lead dust. Lead can be taken home on workers' clothes, skin, hair, tools and in vehicles.

Lead exposure may take place in demolition, salvage, removal, encapsulation, renovation and cleanup activities.

Avoid Exposure

- Use proper personal protective equipment (e.g., gloves, clothing and approved respirators).
- Wash hands and face after work and before eating.
- Never enter eating areas wearing protective equipment.
- Never wear clothes and shoes that were worn during lead exposure away from work.
- Launder clothing daily; use proper cleaning methods.
- Be alert to symptoms of lead exposure (e.g., severe abdominal pain, headaches, loss of motor coordination).

Use Respirators

- Wear appropriate respirators as directed.
- Conduct a user seal check each time a respirator is donned.
- Be aware of your company's respiratory protection program; understand the limitations and potential hazards of respirators.

Prevent Further Exposure

- Ensure adequate ventilation.
  - When outdoors, stand upwind of any plume.
- Use dust collecting equipment, when possible.
- Use lead-free materials and chemicals.
- Use wet methods to decrease dust.
- Use local exhaust ventilation for enclosed work areas.

For more complete information:

OSHA Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA 3291-10-05

OSHA® QUICK CARD™

Hazard Communication Standard Pictogram

As of June 1, 2015, the Hazard Communication Standard (HCS) will require pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

HCS Pictograms and Hazards

Health Hazard  • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity	**Flame**  • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides	**Exclamation Mark**  • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  • Gases Under Pressure	**Corrosion**  • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals	**Exploding Bomb**  • Explosives • Self-Reactives • Organic Peroxides
Flame Over Circle  • Oxidizers	**Environment** (Non-Mandatory)  • Aquatic Toxicity	**Skull and Crossbones**  • Acute Toxicity (fatal or toxic)

For more information:

OSHA® Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov (800) 321-OSHA (6742)

OSHA 3401-02 2012

OSHA® QUICK CARD™

Hazard Communication Safety Data Sheets

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

(Continued on other side)

For more information:

OSHA® Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov (800) 321-OSHA (6742)

OSHA 3493-02 2012

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Hazard Communication Safety Data Sheets

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*
Section 13, Disposal considerations*
Section 14, Transport information*
Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees.
See Appendix D of 29 CFR 1910.1200 for a detailed description of SDS contents.

For more information:

OSHA® Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov (800) 321-OSHA (6742)

OSHA 3493-02 2012

OSHA QUICK CARD™

Protect Yourself

Portable Generator Safety

Portable generators are internal combustion engines used to generate electricity and are commonly used during disaster response. Portable generators can be dangerous if used incorrectly.

Major Causes of Injuries and Fatalities

- Shocks and electrocution from improper use of power or accidentally energizing other electrical systems.
- Carbon monoxide from a generator's exhaust.
- Fires from improperly refueling the generator or inappropriately storing fuel.

Safe Work Practices

- Inspect portable generators for damage or loose fuel lines that may have occurred during transportation and/or handling.
- Keep the generator dry.
- Maintain and operate portable generators in accordance with the manufacturer's use and safety instructions.
- **Never attach a generator directly to the electrical system of a structure** (home, office or trailer) unless the generator has a properly installed transfer switch because this creates a risk of electrocution for utility workers.
- Always plug electrical appliances directly into the generator using the manufacturer's supplied cords. Use undamaged heavy-duty extension cords that are grounded (3-pronged).
- Use ground-fault circuit interrupters (GFCIs) as per the manufacturer's instructions.
- Before refueling, shut down the generator. Never store fuel indoors.

Carbon Monoxide Poisoning

Carbon monoxide (CO) is a colorless, odorless, toxic gas. Many people have died from CO poisoning because their generator was not adequately ventilated.

- **Never use a generator indoors.**
- **Never place a generator outdoors near doors, windows, or vents.**
- **If you or others show symptoms of CO poisoning—dizziness, headaches, nausea, tiredness—get to fresh air immediately and seek medical attention.**

For more complete information:

OSHA Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA 3277-10N-06

OSHA® QUICK CARD™

Portable Ladder Safety

Falls from portable ladders (step, straight, combination and extension) are one of the leading causes of occupational fatalities and injuries.

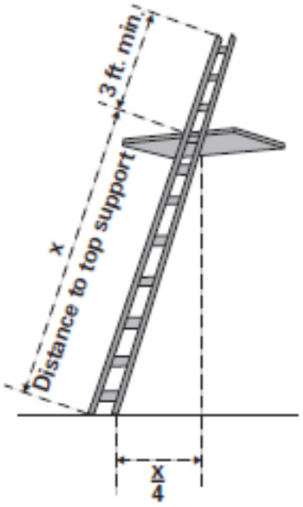
- Read and follow all labels/markings on the ladder.
- Avoid electrical hazards! – Look for overhead power lines before handling a ladder. Avoid using a metal ladder near power lines or exposed energized electrical equipment.
- Always inspect the ladder prior to using it. If the ladder is damaged, it must be removed from service and tagged until repaired or discarded.

3-Point Contact

- Always maintain a 3-point (two hands and a foot, or two feet and a hand) contact on the ladder when climbing. Keep your body near the middle of the step and always face the ladder while climbing (see diagram).
- Only use ladders and appropriate accessories (ladder levelers, jacks or hooks) for their designed purposes.
- Ladders must be free of any slippery material on the rungs, steps or feet.
- Do not use a self-supporting ladder (e.g., step ladder) as a single ladder or in a partially closed position.
- Do not use the top step/rung of a ladder as a step/rung unless it was designed for that purpose.

(continued on reverse)

- Use a ladder only on a stable and level surface, unless it has been secured (top or bottom) to prevent displacement.
- Do not place a ladder on boxes, barrels or other unstable bases to obtain additional height.
- Do not move or shift a ladder while a person or equipment is on the ladder.
- An extension or straight ladder used to access an elevated surface must extend at least 3 feet above the point of support (see diagram). Do not stand on the three top rungs of a straight, single or extension ladder.



- The proper angle for setting up a ladder is to place its base a quarter of the working length of the ladder from the wall or other vertical surface (see diagram).
- A ladder placed in any location where it can be displaced by other work activities must be secured to prevent displacement or a barricade must be erected to keep traffic away from the ladder.
- Be sure that all locks on an extension ladder are properly engaged.
- Do not exceed the maximum load rating of a ladder. Be aware of the ladder's load rating and of the weight it is supporting, including the weight of any tools or equipment.

For more information:

OSHA® Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

OSHA 3246-10N-05

Motor Vehicles

Safe Driving Practices for Employees

You are your employer's most valuable asset! The way that you drive says everything about you and your company. Make a positive statement by following these work-related safe driving practices.

Stay Safe

- Use a seat belt at all times – driver and passenger(s).
- Be well-rested before driving.
- Avoid taking medications that make you drowsy.
- Set a realistic goal for the number of miles that you can drive safely each day.
- If you are impaired by alcohol or any drug, do not drive.

Stay Focused

- Driving requires your full attention. Avoid distractions, such as adjusting the radio or other controls, eating or drinking, and talking on the phone.
- Continually search the roadway to be alert to situations requiring quick action.
- Stop about every two hours for a break. Get out of the vehicle to stretch, take a walk, and get refreshed.

Avoid Aggressive Driving

- Keep your cool in traffic!
- Be patient and courteous to other drivers.
- Do not take other drivers' actions personally.
- Reduce your stress by planning your route ahead of time (bring the maps and directions), allowing plenty of travel time, and avoiding crowded roadways and busy driving times.

For more information on safe driving for work, refer to "Guidelines for Employers to Reduce Motor Vehicle Crashes" at http://www.osha.gov/SLTC/motorvehicle safety/index.html.

For more complete information:

OSHA Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA 3314-03N-05