



SAFETY AND HEALTH MANUAL

JANUARY 2020

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SAFETY MANUAL REVIEW AND UPDATE LOG

Review and Update

JANUARY 2019

Review and Update

JANUARY 2020

Review and Update

JANUARY 2021

PART 1

GENERAL SAFETY AND HEALTH MANUAL

Part 1 General Safety and Health Manual is a section of overall safety operations and guidelines to meet OSHA, Insurance and Company Safety objectives. Parts 2 thru 7 are sections to back-up and support the overall management and documentation of the Company Safety Program.

Policy Statement

John Plott Company, Inc. (from this point forward referred to as John Plott Co., Inc. or the “Company”) has a moral and business obligation to provide a safe work environment for its employees, subcontractors, clients and the public. It is, therefore, the Company's policy to abide by the Occupational Safety and Health Standards and to initiate and maintain appropriate practices that promote safety in the work environment.

All management and supervisory personnel are charged with the responsibility for planning safety into each work task and for preventing the occurrence of incidents and/or controlling conditions / actions that could lead to occupational injuries or illness. The ultimate success of a safety program depends upon the full cooperation of each individual employee. Management at the Company assumes the responsibility and is prepared to take the necessary actions to see that safety rules and practices are enforced.

Our goal is to totally eliminate accidents from our operations.

Goal and Purpose

The goal of John Plott Co., Inc. is to ensure that safety and health efforts are so successful that accidents and injuries are eliminated.

The purpose of this Safety and Health Manual is to provide a set of policies and requirements that management and employees can use as guidelines in their efforts to ensure a safe working environment and reach the company's goal of zero accidents and injuries.

Objectives

To reflect management's commitment to provide a safe and healthy working environment for all employees, subcontractors and vendors.

To establish a set of policies and requirements that management and employees can use as guidelines in their efforts to ensure a safe and healthy working environment.

To be in compliance with federal, state and local safety and health regulations.

To be in compliance with our clients' safety and health rules and regulations.

Achieve our goals of ...zero injuries
 ...zero lost time accidents
 ...zero O.S.H.A. violations

Overview of Safety and Health Manual

This Safety and Health Manual is presented as a guide for achieving a high degree of safety within all areas of the company. It is not intended to cover all situations concerning safety, which may arise. Rather, it is presented to instill in each employee the importance of safety and the aspiration that the employee will expand his/her awareness to safety and apply it to all aspects of their work.

The OSHA CFR 29 Part 1910 Book and OSHA CFR 29 Part 1926 Book are used and referenced when additional standards, additional graphs or additional charts are required.

Responsibilities

Management, Project Managers, Superintendents, Managing Foremen, subcontractors, vendors, visitors and all employees are responsible for the compliance with this Safety and Health Manual.

A summary of each party's responsibilities is outlined below.

Management

It is the responsibility of management to establish rules and programs designed to promote safety and health; to make known to all employees the established rules and programs and to impress upon all employees the responsibility and accountability of each individual to maintain a safe and healthful workplace.

Management will ensure that appropriate safety and health training is provided, that inspections are performed and that accident investigations are conducted and reviewed.

Management will designate a person to administer the Safety and Health Program, which includes the general Safety and Health Manual and any specific Safety and Health Manuals.

Management will observe, enforce and follow all safety rules, regulations and policies.

Safety Coordinator

The Safety Coordinator is responsible for the complete administration of John Plott Co., Inc. Safety Manual and the following items.

- a) Monitor all job sites / areas for compliance with John Plott Co., Inc. Safety Manual.
- b) Assure safety inspections (self & outsiders) are conducted.
- c) Disciplinary and enforcement procedures.
- d) Safety training to company employees.

Safety Administrator

The Safety Administrator is responsible to provide complete support to the Safety Coordinator and the complete Safety Program and the following items:

- a) Administrative support for all safety related items and activities.
- b) Maintain OSHA 301, 300 & 300A forms current.
- c) Monitor Motor Vehicle Reports (MVR).
- d) Monitor Safety Training Requirements.
- e) Safety Board information upkeep.
- f) Publish Safety Information.
- g) Employee safety training records.
- h) Employee orientation packages.
- i) Insurance coordinating.
- j) Accident Tracking.

Project Managers

Project Managers are responsible for maintaining safe and healthful working conditions under their supervision.

- a) Project Managers will review all written warnings and take appropriate disciplinary action.
- b) Project Managers are responsible for requiring conformance to safety and health standards by subcontractors.
- c) Project Managers are responsible for providing the general public, protection from company operations.

Project Managers and Superintendents

Project Managers and Superintendents are responsible for coordinating their safety efforts with each other.

- a) Project Managers and Superintendents are responsible for pre - planning the job site(s).
- b) Project Managers and Superintendents are responsible for reviewing all Accident Reports.
- c) Project Managers and Superintendents are responsible for seeing that preventative measures are taken to ensure that Accidents do not occur.
- d) The Project Managers and Superintendents are responsible for issuing verbal warnings and written warnings when safety and health rules, regulations or company policies are violated and submitting reports for review to the Safety Coordinator.

Superintendents / Managing Foremen

Superintendents / Managing Foremen are responsible for maintaining safe and healthful working conditions on their job site(s).

- a) Superintendents / Managing Foremen are responsible for carrying out the planning of the Project Managers and making the Project Managers aware of any new conditions or hazards that may arise.
- b) Superintendents / Managing Foremen will continually conduct (at least daily) inspections of job site(s) material or equipment. Superintendent / Managing Foremen conducting these inspections must be capable of identifying existing and predictable hazards in the work environment, of identifying working conditions which are unsanitary, hazardous, or dangerous to employees, and of identifying unsafe behavior. Superintendents / Managing Foremen must have the authority to take prompt corrective measures to eliminate or control hazards and correct unsafe behavior.
- c) Superintendents / Managing Foremen will ensure that prompt medical attention for any injured employee is available, and will report all accidents and injuries to Project Managers and/or the Safety Coordinator.
- d) Superintendents / Managing Foremen will ensure personnel protective equipment is available and is being used correctly. Training on PPE is provided, on the job site.
- e) Superintendents / Managing Foremen are responsible for filling out the Accident Report within 24 hours of the Accident.
- f) Superintendents / Managing Foremen are responsible for having the appropriate up-to-date SDS sheets on the job site.
- g) Superintendents / Managing Foremen are responsible for all weekly safety training. All weekly safety training shall be documented & maintained at each job site or Main Office.
- h) Superintendents / Managing Foremen are responsible for ensuring all safety rules & regulations are adhered, to on the job site, by ALL employees, workers, visitors, subcontractors, etc.
- i) Superintendents / Managing Foremen are responsible for submitting Accident Reports and reviewing all Accidents with the Safety Coordinator.

Drivers

Drivers are expected to drive safely at ALL times. Drivers will abide by all federal and state laws regarding the safe operation of vehicles on public roads.

Drivers must meet the requirements outlined in the section "Rules for Drivers".

Operators

Operators are expected to operate their equipment safely at ALL times.

Operators of heavy equipment must meet the requirements in the section "Rules for Operators".

Employees

It is the responsibility of all employees to work safely to ensure their own safety as well as the safety of coworkers and others. Employees are encouraged to ask for assistance when unsure about how to safely perform any task.

- a) Employees are required to report any unsafe acts or conditions to their supervisor. Management will not take any reprimand against employees for such notifications.
- b) Employees are required to attend and participate in all safety meetings and/or safety training sessions that the company conducts.
- c) Employees are responsible for using and maintaining all personal protective equipment that is provided by the employer or the employee.
- d) Employees shall follow all OSHA and company safety rules, regulations and/or policies.

Subcontractors, Vendors and Suppliers

All subcontractors, vendors and suppliers shall meet or exceed all published, posted and OSHA safety rules.

All subcontractors, vendors and suppliers are required to provide competent persons and/or adequate supervision to perform all activities for John Plott Co., Inc. in the safest manner possible.

The John Plott Co., Inc. Safety Manual and the OSHA standards are the minimum requirements.

Architects, Engineers, Owners and Visitors

Architects, Engineers, Owners, Visitors and / or third parties hired directly by the preceding parties or those otherwise not named shall abide by all safety rules.

All parties who enter a work zone (job site) or an area of safety hazards around a work zone in or near a John Plott Co job site may be required to complete a safety training session and / or orientation, at discretion of John Plott Co management, and provide John Plott Co a certificate of insurance, in line with the same requirements as a subcontractor as outlined in this safety manual or the contract for the project, whichever offers more protection toward John Plott Co and the owner of the project. Such certificate of insurance shall name John Plott Co and the project owner as an additional insured.

All parties must also sign a waiver that acknowledges their ability to physically and mentally enter and maneuver around the worksite, as well as their competency to recognize the hazards around them and avoid the same. By executing this waiver, said parties also acknowledge that the owner, John Plott Co nor its employees shall serve as a competent person for them and they shall provide their own competent person for all activities in or around the worksite.

This is a minimum standard and some situations may require additional measures, including documentation of applicable training, based upon the safety requirements for a project at the sole discretion of John Plott Co.

Safety and Health Procedures

The safety and health goal and objectives will be realized by implementation of policies outlined under the following headings:

- Accountability
- Enforcement - Progressive Discipline Procedures
- Bidding / Estimating
- Pre - Planning
- Employee Participation
- Site Safety Inspections
- Accident Investigations and Prevention
- Personal Protection Equipment
- New & Re - Hired Employee Orientation
- Safety Training
- Technical Support
- Documentation

Accountability

Project Managers, Superintendents and Managing Foremen are accountable for improving the safety performance of personnel under their supervision.

If any employee has knowledge of any existing safety hazard, and they have brought it to their supervisor's attention without results, please respond to the Safety Coordinator, and the situation will be investigated.

This safety program is presented as a guide for achieving a high degree of safety within all areas of the company. It is not intended to cover all situations concerning safety, which may arise. Rather, it is presented to instill in each employee the importance of safety and the aspiration that the employee will expand his/her awareness to safety and apply it to all aspects of their work.

Enforcement - Progressive Discipline Procedures

Project Managers, Superintendents, Managing Foremen or any employee found violating any of the safety and health policies outlined in the Safety and Health Manual, or participating in any other hazardous activity on the job site or while performing activities for the company, will be subject to the following progressive discipline procedures.

- | | |
|--------------------------|--|
| First Violation: | A verbal warning with an explanation, counseling or additional training. |
| Second Violation: | A written warning and management review of conduct. |
| Third Violation: | A written warning and being subjected to suspension without pay. |
| Fourth Violation: | A written warning, subject to immediate termination of employment. |

Exceptions:

1. The progressive discipline procedures will be suspended, if an employee commits a gross violation of these Safety and Health Manuals or participates in an unsafe act that poses an immediate danger to the life and health of themselves or other employees.
2. If an employee commits a substance abuse violation, (as described in the Substance Abuse Program) the employee is subject to the disciplinary measures outlined under the Substance Abuse Program.

Bidding / Estimating

Bidding / estimating will include consideration for the elimination or control of safety and health hazards, and all items in the company Safety and Health Manual.

Pre - Planning

The pre - planning of jobs will include attention to the elimination or control of safety and health hazards, and all items in the company Safety and Health Manual.

Employee Participation

Employees are encouraged to make the company aware of any safety and health issues or concerns.

Employees are encouraged to make recommendations for the elimination or control of safety and health hazards.

All safety and health issues brought up by the employees will be reviewed and responded to by management in a timely manner.

Site Safety Inspections

Site safety inspections will be conducted on a regular basis to determine job site hazards, methods to eliminate or control the hazards and ensure that safe work practices are being implemented.

Accident Investigation and Accident Prevention

Accidents will be investigated to prevent future mishaps.

- a) All accidents must be reported to the Main Office within 1 hour.
- b) An Accident Investigation Report must be filled out for each Accident by the Supervisor of the employee involved in the Accident.
- c) All Accidents will be reviewed by the Safety Coordinator to determine future prevention measures.

Definitions:

Accident: An "accident" is one in which 1) a fatality occurs, or 2) an individual in the accident immediately receives medical treatment away from the accident scene, 3) a driver of a commercial motor vehicle receives a citation for a moving traffic violation arising from an accident or 4) there is damage to company property, the property of others or public property.

Incident: An "incident" or "near miss" is an event that could have resulted in an accident.

Personal Protective Equipment (PPE)

All employees will be trained on the proper use and maintenance of personal protective equipment.

New and Re-Hired Employee Orientation

The Safety and Health Manual will be reviewed with all new hired and/or re-hired employees prior to beginning work. New hired and/or re-hired employees will be required, prior to beginning work, to sign a statement of employee understanding regarding the Safety and Health Manual.

Safety Training

Safety training will be documented and entered into employee's personnel files and safety records.

Company Wide Safety Training

Company wide safety training will be conducted on an annual basis, or as deemed necessary by the Safety Coordinator. These safety training meetings will cover company wide safety and health topics as well as OSHA required safety training.

Project Managers and Superintendents Safety Training

Project Managers and Superintendents meetings will be conducted on a regularly scheduled basis. Some of the topics for these meetings will focus on their responsibility as outlined in the Safety and Health Manual.

They will be trained to identify hazards, hazard control and training other employees, subcontractors and vendors on safe work practices and procedures.

On - Site Safety Training

On - site safety training will cover such topics as:

- a) Safety rules and/or regulations.
- b) Site specific hazards.
- c) Safe work practices.
- d) Procedures being used to eliminate specific hazards.
- e) Safety training on personal protective equipment.
- f) Other safety topics the Safety Coordinator deem necessary.

Weekly Safety Training

Superintendents and Managing Foremen are responsible for weekly safety training on site specific safety and health hazards.

Superintendents and Managing Foremen document each session topic and attendance is recorded.

Specialized and/or Specific Safety Training

Specialized safety training will be conducted on an "as needed" basis by the company for specific job related functions.

Technical Support

Outside technical support, for assistance, to eliminate or control safety and health hazards will be provided on an "as needed" basis by the company.

Documentation

All documentation relating to the Safety and Health Manual will be kept up-to-date and filed in such a manner that it will be readily accessible. Project Managers, Superintendents and Managing Foremen are required to file all appropriate documentation in a timely manner with the Safety Coordinator.

Emergency and First Aid

The Superintendent and Managing Foremen, with the aid of the Safety Coordinator, will determine the emergency phone numbers for each job site. Superintendents and Managing Foremen will communicate the emergency numbers in such a manner that every employee on a job site will be aware of the location of the emergency phone numbers.

Job sites should have at least 1 (one) person trained in emergency 1st Aid & CPR.

Emergency Procedures

Superintendents and Managing Foremen should instruct employees on emergency procedures for the specific job site before work begins. Although the emergency procedures at each job site may vary somewhat, the basic procedures are as follows:

- Don't panic.
- Call for help / 911.
- Provide the dispatcher with detailed information.
- In case of a trench cave in or confined space accident, do not attempt to rescue unless trained in rescue procedures.
- Provide first aid if qualified to do so.
- Don't move injured person unless his or her life is in danger from sources other than the injury.
- Secure the site.
- Shut down the equipment, if necessary.
- Account for everybody on the site.
- Notify the Safety Coordinator of emergency within 1 (one) hour.

Fire

In the event of a fire the procedures are:

- Use fire extinguisher to put out small fires.
- Evacuate the work area.
- Call fire department / 911.
- Meet at designated location.
- Notify the Safety Coordinator of the fire within 1 (one) hour.

First Aid

First aid for minor injuries can be administered on the job site. If the injury requires immediate medical treatment beyond first aid, the Superintendent or managing Foremen will call the appropriate emergency number to receive immediate medical treatment.

If the injury does not require immediate medical treatment, but does require medical treatment beyond first aid, the Superintendent or Managing Foremen shall arrange transportation for the employee to the appropriate emergency medical facility.

If the injury is minor, and first aid treatment is required by the Superintendent or Managing Foremen, appropriate action should be taken to prevent exposure to blood borne pathogens and the exchange of body fluids.

All employees must notify their supervisor and/or the Safety Coordinator of any first aid uses or occurrences.

Please see Job Site Start-Up Procedures in Part 4 Company Specific Safety and Health Policies, Programs, and Plans for further details and requirements.

Accident Reporting and Record Keeping

- All accidents must be reported to the Main Office within 1 hour.
- All eye, neck, back and knee accidents / injuries require immediate medical attention, no matter how minor.
- Accident reports must be 100% complete and turned in to the Main Office within 24 hours of accident.
- All accidents require:
 - a) OSHA 301 Form and Company Accident Form
 - b) First Report of Accident Form (per specific state insurance requirements)
 - c) Substance Abuse Results Form (if applicable)

The company will maintain an OSHA 300 form (log and summary or equivalent) of all recordable injuries and illnesses resulting in a fatality, hospitalization, lost workdays, medical treatment, and/or loss of consciousness.

The previous year OSHA 300 A summary shall be posted by February 1 of each year.

The OSHA 300, (log and summary), the OSHA 301, (supplementary record or company accident report), shall be retained for five years following the end of the year to which it relates.

Within 8 hours after its occurrence, an employment accident which is fatal to one (1) or more employees shall be reported either orally or in writing, to the nearest OSHA Area Coordinator. Also, within 24 hours after its occurrence, any employment accidents which result in inpatient hospitalization, amputation, or loss of an eye to one (1) or more employees shall be reported either orally or in writing, to the nearest OSHA Area Coordinator. 1-800-321-OSHA (1-800-321-6742)

Modified - Work Program

In the interest of eliminating lost time injuries and reducing Workers Compensation Insurance costs, John Plott Co., Inc. may use a "Modified - Work Program" for injured employees. The intent of this program is to have injured workers with physical restrictions continue to work performing a modified work task within their physical limitations. It is not to be construed as a "make work" program.

Subcontractor Selection

Safety and health performance will be one of the criteria used to select subcontractors. The safety and health guidelines outlined below will be used to evaluate subcontractors.

- a) Insurance Certificate
- b) Safety and Health Manual
- c) Substance Abuse Program

Safety and Health Manual Revision

The Safety and Health Manual is a working document and will be revised and updated as necessary. At a minimum, the Safety and Health Manual will be reviewed and updated on an annual basis.

Safety Bulletin Board

A "Safety Bulletin Board" will be established with up-to-date and current safety information. Many other safety related items will be available in the "Safety Bulletin Board" area.

Distribution of the Safety and Health Manual

Up-to-date copies of the Safety and Health Manual will be available to all employees, subcontractors and vendors through the Safety Coordinator or a copy is available at the Main Office.

In addition, Project Managers, Superintendents and Managing Foremen will have up-to-date copies of the Safety and Health Manual.

PART 2

JOB SITE SPECIFIC SAFETY RULES

Part 2 Jobsite Specific Safety Rules is a section of specific safety rules and regulations (OSHA 1926) for the construction job site. Please refer to Part 4 Specific Safety and Health Policies, Programs and Plans for additional safety policies and in-depth, detailed procedures on certain safety issues and work task.

Abrasive Grinding

Abrasive wheel bench or stand grinders must have safety guards strong enough to withstand bursting wheels. [1926.303(b) & (c)(1)]

Adjust work rest on grinders to a clearance not to exceed 1/8 inch between rest and wheel surface. [1926.303(c)(2)]

Inspect abrasive wheels before mounting. [1926.303(c)(7)]

Always leave wheel in safe working condition for next user.

Access / Egress

Do not jump on or off equipment and/or vehicles.

Use only safe means of access / egress to and from work areas. Safe means includes ladders, ramps and stairs. Jumping from or to work areas is not allowed, nor is sliding down cables, ropes or guy-wires.

Keep all equipment, vehicles, footwear, access areas, etc., clean at all times.

Aerial Lifts

All modifications to any aerial lift, must have written approval from the manufacturer. [1926.453(a)(2)]

Employees shall have adequate training and proper authorization prior to operating any Aerial Lift. [1926.453(b)(2)(ii)]

Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position. [1926.453(b)(2)(iv)]

A body belt shall be worn and a lanyard attached to the boom or basket when working from an aerial lift. [1926.453(b)(2)(v)]

Never remove the guardrail while the aerial lift is in use. Always use the safety chain while the aerial lift is in use.

Never disconnect the back up alarm on an aerial lift.

Never dismount the aerial lift until it is all the way down.

Always alert other employees on the aerial lift prior to changing the height or the position of the aerial lift.

Use extreme caution when using the aerial lift on uneven surfaces.

Use extreme caution to avoid head injuries from overhead objects when lifting aerial lift.

Air Tools

Secure pneumatic tools to hose in a positive manner to prevent accidental disconnection. [1926.302(b)(1)]

Install and maintain safety clips or retainers on pneumatic impact tools to prevent attachments from being accidentally expelled. [1926.302(b)(2)]

The manufacturer's safe operating pressure for all fittings shall not be exceeded. [1926.302(b)(5)]

Clothing

All clothing shall be maintained in good shape and worn correctly.

No clothing shall be worn at work that has excessive holes.

No clothing shall be excessively loose, no “hanging” clothes, no “baggy” pants, etc.

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. [1926.302(b)(4)]

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. [1926.350(a)(1)]

Compressed gas cylinders shall be secured by a cart, chain, etc. at all times. [1926.350(a)(7)]

Cylinder valves will be closed when work is finished and when cylinders are empty or being moved. [1926.350(a)(8)]

Compressed gas cylinders shall be secured in an upright position at all times except, if necessary, for short periods of time while cylinders are actually being hoisted or carried. [1926.350(a)(9)]

Oxygen and fuel gas cylinders (in storage), shall be separated by a five - foot high non - combustible wall. The wall must have a fire resistance rating of at least one - half hour or a 20-foot separation. [1926.350(a)(10)]

No damaged or defective cylinders shall be used. [1926.350(c)(3)]

Oxygen and fuel gas regulators must be in proper working order while in use. [1926.350(h)]

Concrete and Masonry Construction

No construction loads shall be placed on the structure until the structure is capable of supporting the load. [1926.701(a)]

All protruding reinforced steel onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement. [1926.701(b)]

No employee shall work under concrete bucket while the bucket is being elevated or lowered into position. [1926.701(e)(1)]

Only authorized employees shall be allowed in the “limited access zone” of masonry walls construction. [1926.706(a)(1) thru (a)(5)]

Confined Spaces

All employees required to enter into confined spaces must be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of required protective and emergency equipment.

The employer shall comply with requirements set forth by Subpart AA for practices and procedures to protect employees engaged in construction activities at a worksite with one or more confined spaces.

Confined Space means a space that:

- Is large enough and so configured that an employee can bodily enter it;
- Has limited or restricted means for entry and exit; and
- Is not designed for continuous employee occupancy.

Before it begins work at a worksite, each employer must ensure that a competent person identifies all confined spaces in which one or more of the employees it directs may work, and identifies each space that is a permit space, through consideration and evaluation of the elements of that space, including testing as necessary. [1926.1203(a)]

Each employer who identifies, or receives notice of, a permit space and has not authorized employees it directs to work in that space must take effective measures to prevent those employees from entering that permit space, in addition to complying with all other applicable requirements of this standard. [1926.1203(c)]

If any employer decides that employees it directs will enter a permit space, that employer must have a written permit space program that complies with 1926.1204 implemented at the construction site. The written program must be made available prior to and during entry operations for inspection by employees and their authorized representatives. [1926.1203(d)]

When there are changes in the use or configuration of a non-permit confined space that might increase the hazards to entrants, or some indication that the initial evaluation of the space may not have been adequate, each entry employer must have a competent person reevaluate that space and, if necessary, reclassify it as a permit-required confined space. [1926.1203(f)]

The employer must provide training to each employee whose work is regulated by this standard, at no cost to the employee, and ensure that the employee possesses the understanding, knowledge, and skills necessary for the safe performance of the duties assigned under this standard. This training must result in an understanding of the hazards in the permit space and the methods used to isolate, control or in other ways protect employees from these hazards, and for those employees not authorized to perform entry rescues, in the dangers of attempting such rescues. [1926.1207(a)]

Cranes

The controlling entity must: ensure that ground preparations necessary to meet the requirements in paragraph (b) of this section are provided. [1926.1402(c)(1)]

Assembly / Disassembly must be supervised by a person who meets the criteria for both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons (“A / D director”). [1926.1404(a)(1)]

Upon completion of assembly, the equipment must be inspected by a qualified person to assure that it is configured in accordance with manufacturer equipment criteria. [1926.1412(c)(1)]

A competent person must begin a visual inspection prior to each shift the equipment will be used, which must be completed before or during that shift. The inspection must consist of observation for apparent deficiencies. Taking apart equipment components and booming down is not required as part of this inspection unless the results of the visual inspection or trial operation indicate that further investigation necessitating taking apart equipment components or booming down is needed. Determinations made in conducting the inspection must be reassessed in light of observations made during operation. [1926.1412(d)(1)]

A competent person must begin a visual inspection prior to each shift the equipment is used, which must be completed before or during that shift. The inspection must consist of observation of wire ropes (running and standing) that are likely to be in use during the shift for apparent deficiencies, including those listed in paragraph (a)(2) of this section. Untwisting (opening) of wire rope or booming down is not required as part of this inspection. [1926.1413(a)(1)]

The employer must comply with all manufacturer procedures applicable to the operational functions of equipment, including its use with attachments. [1926.1417(a)]

Whenever there is a concern as to safety, the Operator must have the authority to stop and refuse to handle loads until a qualified person has determined that safety has been assured. [1926.1418]

Personal fall arrest system components must be used in personal fall arrest and fall restraint systems and must conform to the criteria in 1926.502(d) except that 1926.502(d)(15) does not apply to components used in personal fall arrest and fall restraint systems. Either body belts or body harnesses must be used in personal fall arrest and fall restraint systems. [1926.1423(d)]

Train each employee assigned to work on or near the equipment (“Authorized Personnel”) in how to recognize struck-by and pinch / crush hazard areas posed by the rotating superstructure. [1926.1424(a)(2)(i)]

The use of equipment to hoist employees is prohibited except where the employer demonstrates that the erection, use, and dismantling of conventional means of reaching the work area, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform, or scaffold, would be more hazardous, or is not possible because of the project’s structural design or worksite conditions. This paragraph does not apply to work covered by subpart R (Steel Erection) of this part. [1926.1431(a)]

Employers must ensure that the operators of cranes have qualification or certification prior to use.

At / near any Power lines, before the beginning of any equipment operation, the employer must identify the work zone and assess the hazards.

Power line safety for equipment operations including assembly and disassembly must be adhered to.

All safety devices and operational aids required shall be installed and operational.

The employer of the signal person must ensure that each signal person meets the Qualification Requirements.

Demolition

Prior to permitting employees to start demolition operations, an engineering survey shall be made, by a competent person, of the structure to determine the condition of the framing, floors, and walls, and possibility of unplanned collapse of any portion of the structure. Any adjacent structure where employees may be exposed shall also be similarly checked. The employer shall have in writing evidence that such a survey has been performed. [1926.850(a)]

All electric, gas, water, steam, sewer, and other service lines shall be shut off, capped, or otherwise controlled, outside the building line before demolition work is started. In each case, any utility company, which is involved, shall be notified in advance. [1926.850(c)]

During demolition, continuing inspections by a competent person shall be made as the work progresses to detect hazards resulting from weakened or deteriorated floors, or walls, or loosened material. No employee shall be permitted to work where such hazards exist until they are corrected by shoring, bracing, or other effective means. [1926.859(g)]

Drinking Water

An adequate supply of potable water shall be provided in all places of employment. [1926.51(a)(1)]

Potable water containers shall be capable of being tightly closed and be equipped with a tap. [1926.51(a)(2)]

The common drinking cup is prohibited. Cup dispensers and disposable cups shall be provided. [1926.51(a)(4)]

A sanitary container for unused cups and a receptacle for used cups shall be provided. [1926.51(a)(5)]

Electrical - General

These sections apply to installations, both temporary and permanent, used on the job site. [1926.402(a)]

All electrical conductors and equipment shall be approved. [1926.403(a)]

The employers shall ensure that electrical equipment is free from recognized hazards that are likely to cause death or serious harm to employees. [1926.403(b)]

Splices must be soldered wire connections with insulation equal to the cable. [1926.403(e)]

All 120-volt, single phase, 15- and 20- ampere receptacles must be protected by G.F.C.I. [1926.404(b)(1)(ii)]

Temporary lights shall not be suspended by their cords. [1926.405(a)(2)(ii)(F)]

Flexible cords and cables shall be protected from damage. [1926.405(a)(2)(ii)(I)]

All extension cords must be 3 - wire type, protected from damage, and not fastened with staples, hung from nails or suspended from wires. [1926.405(a)(2)(ii)(J)] & [1926.416(e)(2)]

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. [1926.416(a)(1)]

Workspaces, walkways and similar locations shall be kept clear of cords. [1926.416(b)(2)]

Worn or frayed electrical cords or cables shall not be used. [1926.416(e)(1)]

All extension cords shall be inspected daily, prior to use, for damage or defects. No cord or tool with a damaged ground plug shall be used.

Only qualified electricians are allowed to make electrical repairs on equipment, tools, etc.

Employee / Subcontractor Conduct

All employees of this company and all subcontractor employees are required to follow all of our client's safety rules and regulations.

All employees of this company and all subcontractor employees shall follow all federal, state and local laws and regulations at all times on company projects, company property and/or during company business hours.

Excavation and Trenching

The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations, that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation. [1926.651(b)]

Utility companies or owners shall be contacted within established customary local response times, advised of the proposed work, and asked to establish the location of the utility underground installations prior to the start of actual excavation. When utility companies or owners cannot respond to a request to locate underground utility installations within 24 hours (unless a longer period is required by state or local law), or cannot establish the exact location of these installations, the company may proceed, provided the company does so with caution, and provided detection equipment or other acceptable means to locate utility installations are used. [1926.651(b)(2)]

When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means. While the excavation is open, underground installation shall be protected, supported or removed as necessary to safeguard employees. [1926.651(b)(3)&(b)(4)]

Each employee in an excavation shall be protected from cave-ins by an adequate protective system except when:

- Excavations are made entirely in stable rock; or excavations are less than five feet in depth and examination of the ground by a competent person provided no indication of a potential cave-in. [1926.652(a)(1)(i) & (a)(1)(ii)]

A copy of the tabulated data for excavation protective systems must be maintained at the job site during construction. [1926.652(c)(3)(iii)]

Employees shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least two feet from the edge of the excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary. [1926.651(j)(2)]

Daily inspections of excavations, the adjacent areas and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by a competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when employee exposure is anticipated. [1926.651(k)(1)]

A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are four feet or more in depth so as to require no more than 25-feet of lateral travel for employees. [1926.651(c)(2)]

Where employees or equipment are required or permitted to cross over excavations, walkways or bridges with standard guardrails shall be provided. [1926.651(l)] & [1926.501(b)(7)]

Excavations over 20'-0" must be engineered by an registered engineer prior to excavation.

Explosives and Blasting

Permits must be obtained prior to blasting.

Only authorized and qualified persons shall be permitted to handle and use explosives. [1926.900(a)]

Explosive material shall be stored in approved facilities required under the applicable provisions of the Bureau of Alcohol, Tobacco, and Firearms regulations contained in 27 CFR Part 55, Commerce in Explosives.

Smoking and open flames shall not be permitted within 50 feet of explosives and detonator storage magazines. [1926.904(c)]

Procedures that permit safe and efficient loading shall be established before loading is started. [1926.905(a)]

Eye and Face Protection

Eye and face protection must be worn when machines or operations present potential eye or face injury. [1926.102(a)(1)]

Eye and face protective equipment shall meet all requirements of ANSI Z 87.1-1968, "Practice of Occupational and Educational Eye and Face Protection". [1926.102(a)(2)]

Goggles will be worn over any employee owned prescription glasses that do not meet industrial safety standards. [1926.102(a)(3)]

Employees involved in welding operations must wear filter lenses or plates of the proper shade number. [1926.102(b)(1)]

Employees exposed to laser beams shall be furnished suitable laser safety goggles, which will protect for the specific wavelength of the laser and be optical density (O.D.) adequate for the energy involved. [1926.102(b)(2)]

Fall Protection

Where employees are exposed to falling 6 feet or more from an unprotected side or edge, the employer must select and use a guardrail system, safety net system, or a personal fall arrest system to protect the worker from falls. [1926.501(b)(1)]

A personal fall arrest system consists of an anchorage, connectors, a body harness and may include a lanyard, a deceleration device, lifeline or a suitable combination of these. [1926.500 (b)] & [1926.502(d)]

Each employee using ramps, runways, and other walkways shall be protected from falling 6 feet or more by guardrail systems. [1926.501(b)(6)]

Each employee at the edge of an excavation 6 feet deep or more shall be protected from falling by guardrail systems, fences, barricades, or covers. Where walkways are provided to permit employees to cross over excavations, guardrails are required on the walkway if it is 6 feet or more above the excavation. [1926.501(b)(7)]

Fire Protection

A fire protection program is to be followed throughout phases of the construction and demolition work involved. It shall provide for effective fire fighting equipment to be available without delay, and designed to effectively meet all fire hazards as they occur. [1926.150(a)(1)]

Fire fighting equipment shall be conspicuously located and readily accessible at all times, and periodically inspected and maintained in operating condition. [1926.150(a)(2) through (a)(4)] Report any inoperative or missing equipment to your supervisor.

First Aid

The employer shall insure the availability of medical personnel for advice and consultation on matters of occupational health. [1926.50(a)]

Provisions shall be made prior to commencement of the project for prompt medical attention in case of serious injury. [1926.50(b)]

In the absence of an infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite, which is available for the treatment of injured employees, a person who has a valid certificate in first-aid training from the U.S. Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence, shall be available at the worksite to render first aid. [1926.50(c)]

First aid supplies shall be easily accessible when required. [1926.50(d)(1)]

The contents of the first aid kit shall be placed in a weatherproof container with individual sealed packages for each type of item, and shall be checked by the employer before being sent out on each job and at least weekly on each job to ensure that the expended items are replaced. [1926.50(d)(2)]

Proper equipment for prompt transportation of the injured person to a physician or hospital, or a communication system for contacting necessary ambulance service, shall be provided. [1926.50(e)]

In areas where 911 is not available, the telephone numbers of the physicians, hospitals, or ambulances shall be conspicuously posted. [1926.50(f)]

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use. [1926.50(g)]

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 shall be provided. [1926.200] & [1926.201]

Flag personnel shall wear highly visible garments while flagging. Warning garments worn at night will have reflector material. [1926.200] & [1926.201] & [1926.651(d)]

Always follow state D.O.T. requirements and MUTCD Manual.

Flammable and Combustible Liquids

No more than 25 gallons shall be stored in a room outside of an approved storage cabinet. [1926.152(b)(1)]

Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids. [1926.152(a)(1)] & [1926.155(L)]

Post conspicuous and legible signs prohibiting smoking in service and refueling areas. [1926.152(g)(9)]

All containers must be labeled with appropriate hazardous warnings. Keep flammable liquids in closed containers.

No smoking within 25' of any fuel storage and/or fueling operations.

Foot Protection

Employees shall wear work shoes or work boots that give ankle support and have a hard sole on the job site.

No sneakers, tennis shoes or open toed shoes are permitted on the job site.

Additional toe protection shall be used when required.

Forklift Safety

The employer shall certify that each operator has been trained and evaluated as required by 1910.178(L)(6). [1926.602(d)]

Employees shall have adequate training and proper authorization prior to operation

Forklift extensions should always be close to the ground when driving forklift un-loaded.

When forklift is being used to move material, be cautious of overhead objects such as lights, power lines, etc.

Never speed or turn too quickly. When forklift is not in use the brake should be set and the machine in park.

Always use caution and watch out for people around corners. Always blow the horn when going through a doorway or around a corner.

Only one person is allowed on forklift at a time.

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 for 1970" of the ACGIH, shall be avoided. (American Conference of Government Industrial Hygienists) [1926.55(a)]

When engineering and administrative controls are not feasible to achieve full compliance, protective equipment or other protective measures shall 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 first be approved for each particular use by a competent industrial hygienist or other technically qualified person. [1926.55(b)]

Hand Protection

Employees should be aware of hand hazards such as pinch points, sharp objects, hot objects, etc. and wear appropriate gloves to protect hands and lower arms.

Hand Tools

Employers shall not issue or permit the use of unsafe hand tools. [1926.301(a)]

Wrenches shall 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. [1926.301(b), (c) & (d)]

Electric - power operated tools shall either be approved double insulated or be properly grounded, and used with ground fault circuit interrupters. [1926.302(a) & 1926.404(b)(1)]

Hard Hats

Employees working in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock or burns, shall be protected by protective helmets. [1926.100]

Hard hats shall be worn at all times on the job site.

Hard hats shall be worn at all times when off equipment and/or out of vehicles.

Hard Hats shall be worn correctly.

Hearing Protection

When engineering or administrative controls fail to reduce sound levels within the limits of Table D-2, ear protective devices shall be provided and used. [1926.52(b) & 1926.101(a)]

In all cases where sound levels exceed the values shown in Table D-2 of the Safety and Health Standards, a continuing, effective hearing conservation program shall be administered. [1926.52(d)(1)]

Table D-2 Permissible Noise Exposures

Duration Per Day, Hours	Sound Level DBA Slow Response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ or less	115

Plain cotton is not an acceptable protective device. [1926.101(c)]

Heating Devices, Temporary

When heating devices are used, fresh air shall be supplied to maintain the safety and health of employees. [1926.154(a)(1)]

Heat Stress

Employees are encouraged to drink plenty of water during work days.

During work in hot environments, workers should use the lightest weight or “breathable” protective garments that give adequate protection.

Heavy and minimal work activities should be alternated.

Housekeeping / Clean-up

Clean up everyday all areas, including but not limited to, job site, vehicles, shop, office, equipment, tools, etc.

Scrap lumber and other debris will be kept clear from work areas at all times. [1926.25(a)]

Remove combustible scrap and debris at regular intervals. [1926.25(b)]

Containers will be provided for collection and separation of all refuse. Covers are required on containers used for flammable or harmful substances. [1926.25(c)]

Nails shall be withdrawn from used lumber. [1926.250(b)(8)(i)]

Whenever materials and/or trash are dropped more than 20 feet, an enclosed chute shall be used. [1926.252(a)]

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.

All vehicles and/or equipment must be free of loose debris, dirt, mud, etc., before operation on public roads.

Ladders

Job-made ladders will be constructed for their intended use and/or load. Rungs and/or cleats will be uniformly spaced, no more than 12 inches, apart. [1926.1053(a)(3)(i) & (a)(3)(ii)]

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 practical, provide grab rails. Secure against movement while in use. [1926.1053(b)(1) thru (b)(7)]

Portable metal ladders may not be used for electrical work or where they may contact electrical conductors. [1926.1053(b)(12)]

Portable and fixed ladders with broken or missing rungs or steps, broken or split side rails, or with other faulty or defective construction are prohibited. When ladders with such defects are discovered, withdraw them from service immediately. [1926.1053(b)(16)]

All employees working in a trench, four feet or more in depth, must be within 25 feet of a ladder, ramp, or stairs. [1926.651(c)(2)]

Under no circumstances will an employee use anything other than a ladder, scaffold or ramp to enter and exit excavations over four feet in depth. These methods will also be wholly within a protective system if the excavation is over five feet in depth. If a ramp is used, the slope shall be flat enough for employees to enter and exit in an upright position.

All ladders must be secure. Always face ladders when going up or down.

Materials and tools should be hoisted up or down ladders with a rope, cable or other safe hoisting methods.

Never use the top or the top step of a stepladder.

Lasers

Only qualified and trained employees shall be assigned to install, adjust and operate laser equipment. [1926.54(a)]

“Laser in Use” signs shall be posted at all times lasers are in operation. [1926.54(d)]

Lighting

Construction area, ramps, walkways, corridors, offices, shops, sheds and storage areas shall be adequately lighted. [1926.56(a) & (b)]

Liquefied Petroleum Gas

Each system shall have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type. [1926.153(a)(1)]

All cylinders shall meet DOT specifications. [1926.153(a)(2)]

Containers shall be placed upright on firm foundations or otherwise firmly secured. [1926.153(g) & (h)(11)]

Storage of LPG within buildings is prohibited. [1926.153(j)]

Storage locations shall have at least one approved portable fire extinguisher, rated not less than 20-b:c. [1926.153(L)]

Lock Out / Tag Out

Controls that are to be deactivated during the course of work on energized or de-energized equipment or circuits shall be tagged. [1926.417(a)]

Equipment or circuits that are de-energized shall be rendered inoperative and shall have tags attached at all points where such equipment or circuits can be energized. [1926.417(b)]

Tags shall be placed to identify plainly the equipment or circuits being worked on. [1926.417(c)]

Manual Lifting

Employees should be prepared for lifting task assigned and use legs to lift, instead of back or obtain assistance.

Motor Vehicles and Construction Equipment

Check all vehicles in use at the beginning of each workday to assure all parts, equipment and accessories affecting safe operation are in proper operating condition and free from defects. All defects shall be corrected before placing vehicle in service. [1926.601(b)(14)]

No employee shall use any motor vehicle, earthmoving, or compacting equipment having an obstructed view to the rear unless:

- Vehicle has a reverse signal alarm distinguishable from the surrounding noise level,
or
- Vehicle is backed up only when an observer signals it is safe to do so. [1926.601(b)(4)]

Employees shall maintain eye contact with operators of all types of vehicles or equipment. Before entering the site, locate all moving equipment and/or potential sources and routes of moving equipment. This shall be determined and precautions taken at that time to ensure employees on the ground do not come into physical contact with moving equipment. Ensure that all back-up alarms are functioning and/or spotters and/or mirrors are in place and in use.

Personal Protective Equipment

The employer is responsible for requiring the wearing of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions, or where the need is indicated for using such equipment to reduce the hazards to the employees. [1926.28(a)]

Where employees provide their own protective equipment, the employer shall be responsible to assure its adequacy, including proper maintenance, and sanitation of such equipment. [1926.95(b)]

Employees working over or near water, where the danger of drowning exists, shall be provided with U.S. Coast Guard-approved life jackets or buoyant work vests. [1926.106(a)]

All employees are required to wear the appropriate personal protective equipment when required, by any and all rules and regulations set forth by our clients and/or any federal, state or local rules and regulations.

For clarity, “when required” includes, but is not limited to:

- when required by OSHA
- when required by work task
- when required by posted signage
- when required by client

Powder - Actuated Tools

Only trained employees shall operate powder – actuated tools. [1926.302(e)(1)]

Power Transmission, Mechanical

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. [1926.300(b)(2)]

Protection of the Public

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

Always give the public the “right of way”.

Respiratory Protection

In emergencies, when engineering or administrative controls are not effective in maintaining acceptable atmospheres, appropriate respiratory protective equipment shall be provided by the employer and shall be used. [1926.103] & [1910.134]

Respiratory protective devices, shall be approved by the National Institute for Occupational Safety and Health or acceptable to the U.S. Department of Labor for the specific contaminant to which the employee is exposed. [1926.103] & [1910.134]

Respiratory protective devices shall be appropriate for the hazardous material involved and the extent and nature of the work requirements and conditions. [1926.103] & [1910.134]

Employees required to use respiratory protective devices, shall be thoroughly trained in their use. [1926.103] & [1910.134]

Respiratory protective equipment shall be inspected regularly and maintained in good condition. [1926.103] & [1910.134]

Rules for Drivers of Vehicles

No employee shall operate vehicles without adequate training and proper authorization.

Drivers must not take chances. To arrive safely is more important than to arrive on time.

At all times be cautious of other drivers on the road.

Display a positive company image while driving any vehicle.

Positively no tailgating. Maintain a proper distance between you and all other drivers. Obey all speed limits and observe extreme caution in school zones.

Each employee who drives a vehicle must have a valid driver's license for that type of vehicle. Prior to being hired to operate that vehicle, your license will be checked by the management of the Company. It is the employee's responsibility to maintain a valid license thereafter.

Drivers should also refer to Part 2, in the section titled “Motor Vehicles and Construction Equipment.”

When pulling a trailer, compressor, tack wagon, or other unit, always hook up safety chains and put a pin through the hitch. Anyone pulling a trailer or piece of equipment is responsible for checking for proper tags, tires, lights, signals, mirrors, fuel, etc.

Any and all accidents, incidents or near misses must be reported to the office within 1 hour. If an accident occurs, the driver must follow the procedures as outlined in the Substance Abuse Program.

No unauthorized “Riders” in vehicles.

Rules for Operators

No employee shall operate equipment without adequate training & proper authorization.

Operators shall not operate any equipment that is not in safe working order.

Operators shall inspect their equipment prior to beginning work to ensure the equipment is in safe condition.

Operators will also refer to Part 2, in the section titled "Motor Vehicles and Construction Equipment".

Any and all accidents, incidents or near misses must be reported to the office within 1 hour.

If an accident occurs, the operator must follow the procedures as outlined in the Substance Abuse Program.

No "Riders" on equipment.

No employee shall ride any piece of equipment in any fashion or ride on anything attached to a piece of equipment such as a pipe or other equipment. If an employee is on or in a piece of motorized movable equipment, it shall be equipped with a seat (if intended for sit-down operation) and a seat belt and the seat belt shall be worn snugly.

All forklift operators require specific training prior to operating the equipment.

No texting, talking on cell phones, using ear phones or listening to music while operating any equipment.

Saws

Portable, power-driven circular saws will be equipped with guards above and below the base plate or shoe. 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. [1926.304(d)]

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

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

Scaffolds

Scaffold means any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage) used for supporting employees or materials or both. [1926.450(b)]

Each scaffold and scaffold component shall support, without failure, its own weight and at least 4 times the maximum intended load applied or transmitted to it. Scaffolds shall be designed by a qualified person and constructed and loaded in accordance with such design. Scaffolds and scaffold components shall not be loaded in excess of their maximum intended loads or rated capacities, whichever is less. [1926.451(a)(1)]

The scaffold platform shall be planked or decked as fully as possible with the space between the platform and uprights not more than 1 inch wide. [1926.451(b)(1) & (f)(16)]

A competent person shall inspect scaffolds, scaffold components, and ropes on suspended scaffolds before each work shift and after any occurrence that could affect the structural integrity. The competent person also must ensure that prompt corrective action is taken. [1926.451(f)(3) & (d)(10)]

Fall protection - such as a guardrail and/or a personal fall arrest systems - must be provided for each employee working on a scaffold more than 10 feet above a lower level. [1926.451(g)(1)]

Scissor Lifts

Employees shall have adequate training and proper authorization prior to operation.

All modifications to any scissor lift, must have written approval from the manufacturer.

Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or any other device as a work platform.

Never remove lift guardrails while lift is in operation. Always latch guardrail chain while lift is in operation.

Never disable reverse alarm beeper on lift.

Do not exit a lift until it has reached its lowest position.

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Always advise other workers on lift prior to changing height or position.

Use extreme caution when operating lift on uneven surfaces.

Use extreme caution to avoid head injuries from objects above when raising lift.

Signs

For the protection of all, signs such as “No Smoking”, “Laser in Use”, “Keep Out”, “Eye Protection Required”, “Out of Order – Do Not Use” and “Authorized Personnel” will be posted as needed.

Employees will obey these signs and directions.

Smoking Policy

No smoking around flammable or explosive areas.

Clients and customers smoking policies shall be followed.

Smoking is only allowed in designated areas.

Steel Erection

Before authorizing the commencement of steel erection, the controlling contractor shall ensure that the steel erector is provided with written notifications to approve the start of steel erection. [1926.752(a) & (b)]

The operator shall be responsible for those operations under the operator's direct control. Whenever there is any doubt as to safety, the operator shall have the authority to stop and refuse to handle loads until safety has been assured. [1926.753(c)(1)(iv)]

The controlling contractor shall bar other construction processes below steel erection unless overhead protection for the employees below is provided. [1926.759(b)]

Employees engaged in a steel erection activity who is on a walking/working surface with an unprotected side or edge more than 15 feet (4.6 m) above a lower level shall be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems, or fall restraint systems. [1926.760(a)(1)]

The employer shall provide a training program for all employees exposed to fall hazards. The program shall include training and instruction in CFR 29 Part 1926 Subpart M. [1926.761(b) & (b)(1) thru (b)(5)]

The employer shall provide special training to employees engaged in the following activities; multiple lift rigging, connector procedures and CDZ procedures. [1926.761(c)]

Storage

All materials stored in tiers will be secured to prevent sliding, falling or collapse. [1926.250(a)(1)]

Aisles and passageways will be kept clear and in good repair. [1926.250(a)(3)]

Weeds and grass in outside storage areas shall be kept under control. [1926.151(c)(3)]

Stored materials will not obstruct exits. [1926.151(d)(1)]

Materials will be stored with due regard to fire characteristics. [1926.151(d)(2)]

Flammable liquids must be kept in approved containers. [1926.152(a)(1)]

Toilets

Toilets shall be provided by the company according to the following minimums:

- 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 [1926.51(c)(1)]

Washing Facilities

The employer shall provide adequate washing facilities for employees engaged in operations involving harmful substances. [1926.51(f)]

Washing facilities shall be in near proximity to the worksite and shall be so equipped as to enable employees to remove all harmful substances. [1926.51(f)]

Welding, Cutting and Heating

Employers shall instruct employees in the safe means of arc welding and cutting equipment. [1926.351(d)]

When practical, objects to be welded, cut, or heated shall be moved to a designated safe location or, if the objects to be welded, cut or heated cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place, or otherwise protected. [1926.352(a)]

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

All arc welding and cutting cables shall be completely insulated and be capable of handling the maximum current requirements for the job. There shall be no repairs or splices within 10 feet of the electrode holder, except where splices are insulated, equal to the insulation of the cable. Defective cable shall be repaired or replaced. [1926.351(b)(1) & (b)(2)]

Fuel gas and oxygen hose shall be easily distinguishable and shall not be interchangeable. Hoses shall be inspected at the beginning of each shift and shall be repaired or replaced if defective. [1926.350(f)(1) & (f)(3)]

Arc welding and cutting operations will be shielded by non - combustible or flameproof shields to protect employees from direct arc rays. When electrode holders are left unattended, electrodes will be removed and holder will be placed or protected so they cannot make electrical contact. All arc welding and cutting cables will be completely insulated. Defective cable will be repaired or replaced. [1926.351]

Torches shall be lighted ONLY by friction lighters or other approved devices. [1926.350(g)(3)] Cigarette lighters and/or matches are NOT approved lighting devices!

Wire Ropes, Chains, Ropes and other Rigging Equipment

Wire ropes, chains, ropes and other rigging equipment will be inspected prior to use and as necessary during use to assure their safety. Remove defective rigging equipment from service immediately. [1926.251(a)(1)]

Job or shop hooks and links, or makeshift fasteners, formed from bolts, rods or other such attachments will not be used in rigging “systems”. [1926.251(b)(3)]

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. [1926.251(c)(5)(i)] Never “saddle a dead horse”.

Working / Walking under Suspended Loads

Employees shall NOT work / walk under any suspended load. [1926.701(e)(1) & (2)]

Plan your work and train your crew prior to performing activities with cranes and rigging.

PART 3

SHOP / YARD / OFFICE SPECIFIC SAFETY RULES

Part 3 Shop / Yard / Office Specific Safety Rules is a section of specific safety rules and regulations (OSHA 1910) for the Shop, Yard or Office. Please refer to Part 4 Specific Safety and Health Policies, Programs and Plans for additional safety policies and in-depth, detailed procedures on certain safety issues and work task.

Abrasive Grinding

Machine guarding. Abrasive wheels shall be used only on machines provided with safety guards as defined in the following paragraphs of this section. [1910.215(a)(1)]

The safety guard shall cover the entire spindle end nut, and flange projections. [1910.215(a)(2)]

On offhand grinding machines, work rests shall be used to support the work. They shall be of rigid construction and designed to be adjustable to allow for wheel wear. Work rests shall be kept adjusted closely to the wheel with a maximum opening of one-eighth inch. [1910.215(a)(4)]

The angular exposure of the grinding periphery and sides for safety guards used on machines known as bench and floor stands should not exceed 90 degrees or one-fourth of the periphery. [1910.215(b)(3)]

Immediately before mounting, all wheels shall be closely inspected by the user (ring test) to make sure they have not been damaged in transit, storage or other-wise. The spindle speed of the machine shall be checked to be certain that it does not exceed the maximum operating speed marked on the wheel. [1910.215(d)(1)]

Always leave wheel in working condition for next user.

Access / Egress

Do not jump on or off equipment and/or vehicles.

Keep all equipment, vehicles, footwear, access areas, etc., clean at all times.

Use only safe means of access / egress to and from work areas.

Aerial Lifts

Lift controls shall be tested each day prior to use. [1910.67(c)(2)(i)]

Only trained persons shall operate aerial lifts. [1910.67(c)(2)(ii)]

Employees shall always stand firmly on the floor of the basket and shall not sit or climb on the edge of the basket or use planks, ladders or other devices for a work position. [1910.67(c)(2)(iv)]

A body belt shall be worn and a lanyard attached to the boom or basket when working from an aerial lift. [1910.67(c)(2)(v)]

Never remove the guardrail while the aerial lift is in use. Always use the safety chain while the aerial lift is in use.

Never disconnect the back up alarm on an aerial lift.

Never dismount the aerial lift until it is all the way down.

Always alert other employees on the aerial lift prior to changing the height or the position of the aerial lift.

Use extreme caution when using the aerial lift on uneven surfaces

Use extreme caution to avoid head injuries from overhead objects when lifting aerial lift

Air Tools

Pneumatic power tools shall have a tool retainer installed on each piece of utilization equipment which, without such a retainer, may eject the tool. [1910.243(b)(1)]

Hose and hose connections used for conducting compressed air to utilization equipment shall be designed for the pressure and service to which they are subject. [1910.243(b)(2)]

Clothing

All clothing shall be maintained in good shape and worn correctly.

No clothing shall be worn at work that has excessive holes.

No clothing shall be excessively loose, no “hanging” clothes, no “baggy” pants, etc.

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. [1910.242(b)]

The use of compressed air to clean off yourself or other workers is not allowed.

Compressed Gas Cylinders

Oxygen and fuel gas cylinders (inside storage), shall be separated 20-feet. [1910.253(b)(2)(ii)]

Cylinder valves will be closed when work is finished and when cylinders are empty or being moved. [1910.253(b)(2)(iii)]

Put valve protection caps in place before compressed gas cylinders are transported, moved or stored. [1910.253(b)(2)(iv)]

Keep cylinders at a safe distance, or shield from welding or cutting operations and place where they cannot become part of an electrical circuit. [1910.253(b)(5)(ii)(J)]

Confined Spaces

The employer shall evaluate the workplace to determine if any spaces are permit-required confined spaces. [1910.146(c)(1)]

Note: Proper application of the decision flow chart in Appendix A to 1910.146 would facilitate compliance with this requirement.

If the workplace contains permit spaces, the employer shall inform exposed employees, by posting signs or by any other equally effective means, of the existence and location of and the danger posed by the permit spaces. [1910.146(c)(2)]

All employees required to enter into confined or enclosed spaces must be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of required protective and emergency equipment. The employer shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas. Confined or enclosed spaces include, but are not limited to, storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines and open top spaces more than 4 feet deep, such as pits, tubs, vaults, and vessels.

Only trained and authorized employees are allowed to work in and around confined spaces.

All entrants, attendants or entry supervisors must be fully trained in confined space entry / exit procedures and trained in the 1910.146 OSHA standards.

Cranes and Hoist

All manufacturer specifications and limitations must be adhered to. [1910.179]

All equipment shall be inspected, by a competent person, prior to use. [1910.179(j)(1)(i)]

Drinking Water

An adequate supply of potable water shall be provided in all places of employment. [1910.141(b)(1)(i)]

Potable water containers shall be capable of being tightly closed and be equipped with a tap. [1910.141(b)(1)(iii)]

The common drinking cup is prohibited. [1910.141(b)(1)(vi)]

Electrical - General

Electrical equipment may not be used unless the manufacturer's name, trademark or other descriptive marking by which the organization responsible for the product may be identified. [1910.303(e)]

Portable cord and plug connected equipment and flexible cord sets (extension cords) shall be visually inspected before each use on any shift for external defects. [1910.334(a)(2)(i)]

No cord or tool with a damaged ground plug shall be used. [1910.334(a)(2)(ii)]

All extension cords shall be inspected daily, prior to use, for damage or defects.

Workspaces, walkways and similar locations shall be kept clear of cords.

No cord or tool with a damaged ground plug shall be used. Worn or frayed cables may not be used.

Only qualified electricians are allowed to make electrical repairs on equipment, tools, etc.

Employee Conduct

No "catcalling" and/or any form of sexual harassment will be tolerated.

Willful destruction of company property, may result in immediate dismissal.

Any employee caught stealing anything, will be terminated.

Exit Routes and Signage

At least two exits routes must be available in a workplace to permit prompt evacuation of employees and other building occupants during an emergency. [1910.36(b)(1)]

Exits shall be clearly marked and free of obstructions. [1910.37(a)(3)]

For the protection of all, signs such as "No Smoking", "Laser in Use", "Keep Out", "Eye Protection Required", "Out of Order – Do Not Use" and "Authorized Personnel" will be posted as needed.

Employees will obey these signs and directions.

Eye and Face Protection

Eye and face protection shall be worn when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. [1910.133(a)(1)]

Goggles will be worn over any employee owned prescription glasses that do not meet industrial safety standards. [1910.133(a)(3)]

Employees involved in welding operations must wear filter lenses or plates of the proper shade number. [1910.133(a)(5)]

Eye and face protective equipment shall meet all requirements of ANSI Z 87.1-1968, "Practice of Occupational and Educational Eye and Face Protection". [1910.133(b)(1)]

Employees exposed to laser beams shall be furnished suitable laser safety goggles, which will protect for the specific wavelength of the laser and be optical density (O.D.) adequate for the energy involved.

Fall Protection

Every open sided floor or platform 4 feet or more above adjacent floor or ground level shall be guarded by a standard railing. [1910.23(c)(1)]

Regardless of height, open-sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment, pickling or galvanizing tanks, degreasing units, and similar hazards shall be guarded with a standard railing and toe board. [1910.23(c)(3)]

Every flight of stairs having four or more risers shall be equipped with standard stair railings or standard stair handrails as specified in paragraphs (d)(1)(i) through (v) of this section, the width of the stair to be measured clear of all obstructions except handrails. [1910.23(d)(1)]

A standard railing shall consist of top rail, intermediate rail, and posts, and shall have a vertical height of 42 inches nominal from upper surface of top rail to floor, platform, runway, or ramp level. The top rail shall be smooth-surfaced throughout the length of the railing. The intermediate rail shall be approximately halfway between the top rail and the floor, platform, runway, or ramp. The ends of the rail shall not overhang the terminal posts except where such overhang does not constitute a projection hazard. [1910.23(e)(1)]

A stair railing shall be of construction similar to a standard railing but the vertical height shall be not 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. [1910.23(e)(2)]

Fire Protection

The employer shall maintain and inspect, at least annually, firefighting equipment to assure the safe operational condition of the equipment. [1910.156(d)]

The employer shall provide portable fire extinguishers and shall mount, locate and identify them so that they are readily accessible to employees without subjecting the employees to possible injury. [1910.157(c)(1)]

The employer shall distribute portable fire extinguishers for use by employees on Class A & Class D fires so that the travel distance for employee to any extinguishers is 75 feet or less. [1910.157(d)(2)] & [1910.157(d)(6)] and a Class B & Class C fire so that the travel is 50 feet or less. [1910.157(d)(4)] & [1910.157(d)(5)]

First Aid

The employer shall insure the availability of medical personnel for advice and consultation on matters of occupational health. [1910.151(a)]

In the absence of an infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite, which is available for the treatment of injured employees, a person who has a valid certificate in first-aid training from the U.S. Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence, shall be available at the worksite to render first aid. [1910.151(b)]

First aid supplies shall be easily accessible when required. [1910.151(b)]

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use. [1910.151(c)]

The contents of the first aid kit shall be placed in a weatherproof container with individual sealed packages for each type of item, and shall be checked by the employer at least weekly to ensure that the expended items are replaced.

Proper equipment for prompt transportation of the injured person to a physician or hospital, or a communication system for contacting necessary ambulance service, shall be provided.

In areas where 911 is not available, the telephone numbers of the physicians, hospitals, or ambulances shall be conspicuously posted.

Flammable and Combustible Liquids

This paragraph shall apply only to the storage of flammable or combustible liquids in drums or other containers (including flammable aerosols) not exceeding 60 gallons individual capacity and those portable tanks not exceeding 660 gallons individual capacity. [1910.106(d)(1)(i)]

Only approved containers and portable tanks shall be used. Metal containers and portable tanks meeting the requirements of and containing products authorized by chapter I, title 49 of the Code of Federal Regulations (regulations issued by the Hazardous Materials Regulations Board, Department of Transportation), shall be deemed to be acceptable. [1910.106(d)(2)(i)]

Flammable or combustible liquids, including stock for sale, shall not be stored so as to limit use of exits, stairways, or areas normally used for the safe egress of people. [1910.106(d)(5)(i)]

The storage of flammable or combustible liquids in containers or portable tanks shall comply with subdivisions (iii) through (v) of this subparagraph. [1910.106(d)(5)(ii)]

Storage shall be prohibited except that which is required for maintenance and operation of building and operation of equipment. Such storage shall be kept in closed metal containers stored in a storage cabinet or in safety cans or in an inside storage room not having a door that opens into that portion of the building used by the public. [1910.106(d)(5)(iii)]

Suitable fire control devices, such as small hose or portable fire extinguishers, shall be available at locations where flammable or combustible liquids are stored. [1910.106(d)(7)(i)]

Foot Protection

Employees shall wear protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where employee's feet are exposed to electrical hazards. [1910.136(a)]

No sneakers, tennis shoes or open toed shoes are permitted in the shop / yard areas.

Forklift Safety

The employer shall certify that each operator has been trained and evaluated as required by 1910.178(L)(6).

Employees shall have adequate training and proper authorization prior to operation

Forklift extensions should always be no more than two inches off the floor when driving forklift un-loaded.

When forklift is being used to move material, be cautious of overhead objects such as conduit, lights, etc.

Never speed or turn too quickly. When forklift is not in use the brake should be set and the machine in park.

Always use caution and watch out for people around corners. Always blow the horn when going through a doorway or around a corner.

Only one person is allowed on forklift at a time.

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 for 1970" of the ACGIH, shall be avoided. (American Conference of Government Industrial Hygienists)

When engineering and administrative controls are not feasible to achieve full compliance, protective equipment or other protective measures shall 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 first be approved for each particular use by a competent industrial hygienist or other technically qualified person.

Hand Tools

Employers shall not issue or permit the use of unsafe hand tools. [1910.242(a)]

Hard Hats

The employer shall ensure that each affected employee wears a protective helmet when working in areas where there is a potential for injury to the head from falling objects. [1910.135(a)(1)]

Hard hats shall be worn according to the manufacturer's recommendations.

Hearing Protection

When engineering or administrative controls fail to reduce sound levels within the limits of Table G-16, ear protective devices shall be provided and used. [1910.95(a)]

In all cases where sound levels exceed the values shown in the Safety and Health Standards, a continuing, effective hearing conservation program shall be administered. [1910.95(c)(1)]

Housekeeping / Clean-up

General Requirements

All places of employment, passageways, storerooms, and service rooms shall be kept clean and orderly and in a sanitary condition. [1910.22(a)(1)]

Clean up everyday all areas, including but not limited to, vehicles, shop, office, equipment, tools, etc.

Trash and debris will be kept clear from work areas at all times.

Containers will be provided for collection and separation of all trash.

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.

Aisles and Passageways

Where mechanical handling equipment is used sufficient safe clearance shall be allowed for aisles, at loading docks, through doorways and whenever turns or passage must be made. Aisles and passageways shall be kept clear and in good repairs, with no obstruction across or in aisles that could create a hazard. [1910.22(b)(1)]

Handling Materials

Where mechanical handling equipment is used sufficient safe clearance shall be allowed for aisles, at loading docks, through doorways and whenever turns or passage must be made. Aisles and passageways shall be kept clear and in good repair, with no obstruction across or in aisles that could create a hazard. Permanent aisles and passageways shall be appropriately marked. [1910.176(c)]

Ladders

Ladders must be maintained in good usable condition at all times. [1910.26(c)(2)(iv)]

A simple rule for setting up a ladder at the proper angle is to place the base a distance from the vertical wall equal to $\frac{1}{4}$ the working length of the ladder. [1910.26(c)(3)(i)]

No ladders shall be used in a horizontal position as platforms, runways, or scaffolds. Extension ladders must be retracted before transporting. [1910.26(c)(3)(vii)]

All ladders must be secured top and bottom. Always face ladders when going up or down. [1910.26(c)(3)(v)]

Portable ladders shall have nonconductive side-rails if they are used where the employee or the ladder could contact exposed energized parts. [1910.333(c)(7)]

Never use the top or the top step of a stepladder. [1910.25(d)(2)(xii)]

No ladder should be used to gain access to a roof unless the top of the ladder shall extend at least 3 feet above the point of support, at eave, gutter or roof line. [1910.25(d)(2)(xv)]

Materials and tools should be hoisted up or down ladders with a rope, cable or other safe hoisting methods.

Lasers

Only qualified and trained employees shall be assigned to install, adjust and operate laser equipment.

“Laser in Use” signs shall be posted at all times lasers are in operation.

Lighting

Each exit route must be adequately lighted so that an employee with normal vision can see along the exit route. [1910.37(b)(1)]

Additional lighting if needed and maintenance of lighting shall be provided at stairways, aisle ways, walkways and entry / exit areas of all work areas.

Liquefied Petroleum Gas

Containers, and first stage regulating equipment if used, shall be located outside of buildings, except under one or more of the following. [1910.110(b)(6)(i)(a)] through [1910.110(b)(6)(i)(ix)] & [1910.110(6)(i)]

Engines on vehicles shall be shut down while fueling if the fueling operation involves venting to the atmosphere. [1910.110(e)(2)(v)]

All cylinders shall meet DOT specifications. [1910.110(e)(3)(ii)]

No more than two LP-Gas containers shall be used on an industrial truck for motor fuel purposes. [1910.110(e)(13)(ii)]

Lock Out / Tag Out

Controls that are to be deactivated during the course of work on energized or de-energized equipment or circuits shall be tagged. [1910.147]

Equipment or circuits that are de-energized shall be rendered inoperative and shall have tags attached at all points where such equipment or circuits can be energized. [1910.147]

Tags shall be placed to identify plainly the equipment or circuits being worked on. [1910.147]

Manual Lifting

Employees should be prepared for lifting task assigned and use legs to lift, instead of back or obtain assistance.

Office Safety

Office work is generally considered relatively safe, however, conditions and unsafe practices occur that can and do cause accidents.

Exercise care in lifting office machines, filing cases, ledgers, boxes, and bundles of office supplies. All persons lifting any material should observe proper lifting positions so as to lift with the leg muscles rather than putting unnecessary strain on the back. Large boxes or bundles of supplies should be moved by hand truck or unpacked and handled in smaller loads.

Bulky objects should not be carried in such a way as to obstruct the view ahead or interfere with free use of hand rails on stairways. Get help if necessary.

Liquids spilled on floors shall be cleaned up immediately. Loose objects, such as paper clips, pencils, and other small objects, should be kept off the floors.

Extension cords to office machines should be located in such a manner as to eliminate tripping hazards.

Desk and file cabinet drawers should be kept closed except when being used. Open only one drawer at the time to avoid tipping the cabinet.

Use an adequate stepladder to reach objects on overhead shelves.

Walk ... do not run ... in hallways or up and down stairways. Always use hand rails and "grabrails" on stairways.

Pointed objects, such as knives, and scissors, should not be carried in the pocket with the point exposed. Letter openers, knives, blades, and scissors should be used with care and properly stored when not in use.

Gummed strips on envelopes should be moistened with a device. Use letter openers to open envelopes and avoid sliding hands along the edge of paper.

Keep fingers clear when using stapling machines. Keep fingers away from the cutting edge of paper cutters. Never leave a hand operated cutter blade in the raised position.

Defective electrical cords or connections on office machines shall be removed from service until repaired.

Extreme care should be used with all temporary portable heaters, in the office areas.

Personal Protective Equipment

Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices and protective shields and barriers, shall be provided, used and maintained in a sanitary and reliable condition whenever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact. [1910.132(a)]

Defective or damaged personal protective equipment shall not be used. [1910.132(e)]

The employer is responsible for requiring the wearing of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions, or where the need is indicated for using such equipment to reduce the hazards to the employees.

Respiratory Protection

Employees required to use respiratory protective devices, shall be thoroughly trained in their use. [1910.134]

When engineering or administrative controls are not effective in maintaining acceptable atmospheres, appropriate respiratory protective equipment shall be provided by the employer and shall be used. [1910.134(a)(1)]

Respiratory protective devices, shall be approved by the National Institute for Occupational Safety and Health or acceptable to the U.S. Department of Labor for the specific contaminant to which the employee is exposed. [1910.134]

The employer shall select and provide an appropriate respirator based on the respirator hazard to which the worker is exposed and workplace and user factors that affect respirator performance and reliability. [1910.134(d)(1)(i)]

The employer shall select a NIOSH – certified respirator. [1910.134(d)(1)(ii)]

The employer shall provide a medical evaluation to determine the employee's ability to use a respirator. [1910.134(e)(1)]

Respiratory protective equipment shall be cleaned and maintained in good condition. [1910.134(h)(1)(i)]

Scaffolds

Scaffold means any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage) used for supporting employees or material or both.

Scaffolds shall be furnished and erected in accordance with this standard for persons engaged in work that cannot be done safely from the ground or from solid construction, except that ladders used for such work shall conform to. [1910.25] & [1910.26] & [1910.28(a)(1)]

Fall protection – such as a guardrail and/or a personal fall arrest systems – must be provided for each employee working on a scaffold more than 10 feet above a lower level. [1910.28(b)(15)]

Scissor Lifts

Employees shall have adequate training and proper authorization prior to operation.

All modifications to any scissor lift, must have written approval from the manufacturer.

Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or any other device as a work platform.

Never remove lift guardrails while lift is in operation.

Always latch guardrail chain while lift is in operation.

Do not exit a lift until it has reached its lowest position.

Always advise other workers on lift prior to changing height or position.

Use extreme caution when operating lift on uneven surfaces.

Use extreme caution to avoid head injuries from objects above when raising lift.

Smoking Policy

No smoking around flammable or explosive areas.

Clients and customers smoking policies shall be followed.

Smoking is only allowed in designated areas.

Storage

Aisles and passageways will be kept clear and in good repair. [1910.176(a)]

All materials stored in tiers will be secured to prevent sliding, falling or collapse. [1910.176(b)]

Materials will be stored with due regard to fire characteristics, Weeds and grass in outside storage areas shall be kept under control. [1910.176(c)]

Toilets

Toilets shall be provided in all places of employment in accordance with table J-1. [1910.141(c)(1)(i)]

Washing Facilities

The employer shall provide adequate washing facilities for employees engaged in operations where hazardous substances may be harmful to employees. Such facilities shall be in near proximity to the worksite; in areas where exposures are below permissible exposure limits and which are under controls of the employer; and shall be so equipped as to enable employees to remove hazardous substances from themselves. [1910.120(n)(6)]

Welding, Cutting, Heating and Brazing

Employers shall instruct employees in the safe use of welding equipment.

All workers shall follow the requirements set forth in the OSHA standards in accordance with welding, cutting and brazing. [1910.252] thru [1910.255]

If the object to be welded or cut cannot readily be moved, all movable hazards in the vicinity shall be taken to a safe place. [1910.252(a)(1)(i)]

Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch, etc.) for fire prevention shall be taken in areas where welding or other “hot work” is being done. No welding, cutting or heating will be done where application of flammable paints, or presence of other flammable compounds, or heavy dust concentrations, creates a fire hazard. Equip torches with anti-flashback devices. See fire prevention precautions. [1910.252(a)(2)(xv)]

Cylinders shall be kept away from radiators and other sources of heat. [1910.253(b)(2)(i)]

Inside of buildings, cylinders shall be stored in a well-protected, ventilated, dry location, at least 20 feet from highly combustible materials such as oil or excelsior. Cylinders should be stored in definitely assigned places away from elevators, stairs, or gangways. Assigned storage spaces shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards. [1910.253(b)(2)(ii)]

Valve protection caps, where a cylinder is designed to accept a cap, shall always be in place, hand tight, except when cylinders are in use or connected for use. [1910.253(b)(2)(iv)]

Employees exposed to the hazards created by welding, cutting, or brazing operations shall be protected by personal protective equipment in accordance with the requirements of [1910.132]. Appropriate protective clothing required for any welding operation will vary with the size, nature and location of the work to be performed. [1910.252(b)(3)]

Oxygen cylinders shall not be stored near highly combustible material, especially oil and grease; or near reserve stocks of carbide and acetylene or other fuel gas cylinders, or near any other substance likely to cause or accelerate fire; or in an acetylene generator compartment. [1910.253(b)(4)(i)]

Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet or by a noncombustible barrier at least 5 feet high having a fire-resistance rating of at least one-half hour. [1910.253(b)(4)(iii)]

Unless cylinders are secured in a special truck, regulators shall be removed and valve-protection caps, when provided for, shall be put in place before cylinders are moved. [1910.253(b)(5)]

Welding equipment shall be chosen for safe application to the work to be done as specified in paragraph (b) of this section. [1910.254(a)(1)]

Workmen designated to operate arc welding equipment shall have been properly instructed and qualified to operate such equipment as specified in paragraph (d) of this section. [1910.254(a)(3)]

Printed rules and instructions covering operation of equipment supplied by the manufacturers shall be strictly followed. [1910.254(d)(6)]

Electrode holders when not in use shall be so placed that they cannot make electrical contact with persons, conducting objects, fuel or compressed gas tanks. [1910.254(d)(7)]

Cables with splices within 10 feet of the holder shall not be used. The welder should not coil or loop welding electrode cable around parts of his body. [1910.254(d)(8)]

The operator should report any equipment defect or safety hazard to his supervisor and the use of the equipment shall be discontinued until its safety has been assured. Repairs shall be made only by qualified personnel. [1910.254(d)(9)(i)]

Cables with damaged insulation or exposed bare conductors shall be replaced. Joining lengths of work and electrode cables shall be done by the use of connecting means specifically intended for the purpose. The connecting means shall have insulation adequate for the service conditions. [1910.254(d)(9)(iii)]

General mechanical or local exhaust ventilation or air line respirators shall be provided, as required, when welding, cutting or heating:

- zinc, lead, cadmium, mercury, or beryllium bearing, based or coated material in enclosed spaces
- stainless steel with inert-gas equipment
- in confined spaces or
- where an unusual condition can cause an unsafe accumulation of contaminants

Welding electrode stubs shall be collected in metal containers and not dropped on the floor or other walking / working surface.

Torches shall be lighted ONLY by friction lighters or other approved devices. Cigarette lighters and/or matches are NOT approved lighting devices!

Wire Ropes, Chains, Ropes and other Rigging Equipment

Wire ropes, chains, ropes and other rigging equipment will be inspected prior to use and as necessary during use to assure their safety. Remove defective rigging equipment from service immediately. [1910.184]

Job or shop hooks and links, or makeshift fasteners, formed from bolts, rods or other such attachments will not be used in rigging "systems".

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. Never "saddle a dead horse".

PART 4

SPECIFIC SAFETY AND HEALTH POLICIES, PROGRAMS AND PLANS

Part 4 Specific Safety and Health Policies, Programs and Plans is a section of additional safety policies and in-depth, detailed procedures on certain safety issues and work task. Please refer to Part 2 and Part 3 for Specific Safety and Health rules and regulations (OSHA 1926 & 1910).

John Plott Co., Inc.

SUBSTANCE ABUSE POLICY

Purpose of the Policy

John Plott Co., Inc maintains a Drug and Alcohol Policy to help guarantee employees, contractors, and customers a safe workplace, to comply with federal and Alabama law, and to meet the demands of our customers and insurers who may require us to drug test. All employees need to recognize that any unlawful drug use even off-duty, can affect performance and the safety of others. Any questions should be directed to the Designated Employer Representative DER or the Alternate DER.

Our Rules about Drug Use

John Plott Co., Inc as a condition of initial and continued employment, requires all employees to report to work and perform their duties without **any** unlawfully used drugs in their system. We also will not tolerate employees using, possessing, manufacturing, distributing or making arrangements to distribute unlawfully used drugs while at work or on Company or project property, including vehicles. All testing information is considered confidential and released to the Company the DERs and Company's Worker's Compensation Adjusters and Trust Fund Manager and as otherwise allowed by law and this Policy. We prohibit outside conduct which is unlawful, or affects your work, our relationship with the government or our customers, or reflects badly on the Company. Although properly using medication is not prohibited, you must consult with your supervisor or Company physician when you are legitimately taking medication which may affect your work. You must maintain any prescription medication in the original container labeled with the name of the employee and the prescribing physician. You may not take another individual's medication.

Our Rules about Alcohol Use

Employees shall not consume or possess alcohol during work hours, including at lunch or breaks, or while on Company or project property, including vehicles, except where approved by senior management. Employees will also be subject to discipline, including discharge, where they are in any way affected by alcohol, while on duty or on Company or project property. An employee who tests positive for alcohol while on duty or on Company or project property will be presumed to have violated this rule. Under **no** circumstances may an employee operate a Company or personal vehicle during work while leaving work or a Company function where he or she are in any way affected by alcohol.

When We Will Test

1. All **new hires** must test negative in a confirmed urinalysis drug test.
2. All employees are subject to urinalysis drug testing **and/or** blood alcohol testing wherever management has **reasonable suspicion** to believe that an employee has drugs or alcohol in his system or has otherwise violated the Company's drug and alcohol rules, or has displayed acts or patterns of performance, behavior, absenteeism, accidents, safety violations or near misses that **could** indicate drug or alcohol use.
3. The Company will drug test all employees who contributed to an accident in which management estimates **property damage** of any value may have occurred.
4. The Company will drug test all employees who suffer a workplace injury or illness necessitating more than minimal onsite first aid attention. Pursuant to Section 25-5-51 of the Alabama code, the Company will follow Part 40 of Chapter 49 of the Code of Federal Regulations and a positive drug test result will establish a conclusive presumption of impairment resulting from the use of illegal drugs. Pursuant to the Alabama Code, **workers' compensation payments will be denied for an accident caused by impairment**. Compensation shall also be denied where an employee refuses to submit to or cooperate with a blood or urine test following an accident.

5. Employees who operate vehicles on the streets which weigh in excess of 26,000 pounds will also be tested as required by the Federal Highway Administration and state Motor Carrier Safety Regulations, including at recertification physical examinations.
6. All hire-backs will be re-tested like new employees.
7. The Company will periodically randomly draw employee social security numbers to select employees for urinalysis drug testing.
8. The Company will drug test employees wherever required by government regulations, such as the Motor Carrier regulations covering certain drivers, or property owner or general contractor demands.

If you receive a positive test result, you should report to the Company's Medical Review Officer (MRO) any legitimate medication which may have cause a positive test result.

What if You Refuse

Refusal to submit for drug testing is a serious violation of Company policy and is considered willful misconduct and will subject you to denial of worker's compensation benefits (Alabama Code 25-5-51) if the test is post-accident, and subject you to immediate discharge. The use of an adulterant (something added to a specimen to attempt to hide drug use) is considered a refusal to test and a violation of the Policy. The same would be true if you attempted to substitute a specimen or refused to follow the collector's instructions in the case of an observed collection. Additionally, any employee who fails to report an on-the-job accident by days end, and seeks medical treatment from a medical provider not designated by the Company, will be classified as a refusing to submit to post-accident testing.

What if You Fail to Follow Safety Guidelines

Often times, impairment from drugs or alcohol will cause an employee to fail to adhere to safety guidelines and other commonsense safe working practices. Failure to wear a seatbelt, failure to use Company provided or required safety equipment, failure to follow safety guidelines, failure to pre-duty report that you are taking an impairing effect medication, or removal (or disabling) of safety guard will be considered willful misconduct and may disqualify you from receiving worker's compensation benefits. (Alabama Code 25-5-31).

Education

The Company will provide information to employees regarding the dangers associated with drug and alcohol abuse, the Company's rules, and available public sources of rehabilitation and counseling.

Rehabilitation

Anyone who needs help for drug or alcohol problems should immediately seek assistance and quit abusing drugs and alcohol before he or she is caught in violation of the policy. Any questions should be directed to the DER, or in his or her absence the Alternate DER.

Searches

Although, we are not implementing random search programs, we continue to reserve the right to search at any time, desks, cabinets, tool boxes, vehicles, including personal vehicles brought on Company or project property, bags, or any other property at the Company, a project site, or in vehicles, with or without notice.

Discipline

Violation of these rules, including by testing positive, will subject employee to discipline, including immediate discharge. Refusal to cooperate with the Company in any test, search or investigation will result in discipline, including immediate discharge. As explained above under "Testing," a refusal to cooperate or positive result after an accident may result in a loss of workers' compensation benefits.

John Plott Co., Inc.

HAZARD COMMUNICATION PROGRAM

The Hazard Communication Program has been developed by the company in accordance with OSHA Regulations 1926.21 and 1926.59 and 1910.1200. Employees will be trained under the guidelines of the program.

Any questions or comments regarding the Hazard Communication Program should be directed to the supervisor and/or Management.

Chemical Inventory

Hazardous chemicals are inventoried by the office on a regular basis. Any new chemicals brought to the work site by the Company will be included on the hazardous chemical inventory list.

Container Labeling

All chemicals on-site are used from an original container or a temporary container, only in small quantities for immediate use. Any chemical left after work is completed must be returned to the original container, if it is not returned to the original container it must be labeled. No unmarked containers of any size are to be left in the work area unattended.

The Company will rely on the manufacturer's applied labels whenever possible, and will ensure that these labels are not removed or if damaged are replaced. Each container will be labeled with the identity of the hazardous chemical and any appropriate hazard warnings.

Safety Data Sheets (SDS)

The Company will have an up-to-date copy of the safety data sheets (SDS). Each SDS will be in English and shall contain:

- a) The name of the chemical.
- b) The physical hazards.
- c) The health hazards.
- d) The primary route of entry.
- e) The OSHA permissible exposure limit.
- f) Any general precautions for safe handling.
- g) The date of preparation or the date of the last change to the SDS.
- h) The name, address and telephone number of the chemical manufacturer.

SDS are kept at the office and are accessible to all employees. Job specific SDS will be readily available to the employees working on specific job sites. If an employee cannot locate an SDS sheet contact the office.

Supervisors are responsible for having the appropriate up-to-date SDS available to employees.

Employee Training in Haz Com

General

Employees are trained to work safely with hazardous chemicals. Employee training will include:

- a) Methods that may be used to detect a release of hazardous chemicals in the workplace.
- b) Physical and health hazards associated with chemicals.
- c) Protective measure to be taken.
- d) Safe work practices, emergency response and use of personnel protective equipment.
- e) Information on the Hazardous Communication Standard.
- f) Labeling and warning systems.
- g) The employees Right to Know.
- h) And an understanding of the Safety Data Sheet (SDS).
- i) Global Harmonization
- j) Pictograms

On - Site Training

Supervisors are responsible for site specific hazardous chemical training. Training includes:

- a) Types of chemicals on the job site.
- b) Hazards created by chemicals on the job site.
- c) First aid and emergency procedures, when exposed to specific chemicals.
- d) Using appropriate personnel protective equipment for hazardous chemical handling.

Hazards of Non - Routine Tasks

Supervisors inform employees of any special tasks that may arise which would involve possible exposure to hazardous chemicals.

Review of safe work procedures and use of required PPE is conducted prior to the start of such tasks. Where necessary, areas are posted to indicate the nature of the hazard involved.

Multi - Employer Workplaces

Other on - site employers are required to adhere to the provisions of the Hazard Communication Standard.

The Company will provide to other employers on multi - employer job sites, copies of SDS on hazardous chemicals that are used by the Company. Those employers will be responsible for providing their employees with the information necessary to prevent exposure to the Company's hazardous chemicals.

Employers working on the job site with the Company will provide the Company with SDS on each hazardous chemical that they use on the job site. The Company is responsible for providing its employees with the information necessary to prevent exposure to the other employer's hazardous chemicals.

John Plott Co, Inc.

HEAT ILLNESS PREVENTION PROGRAM

PURPOSE

This Heat Stress Prevention Program has been developed to provide Conduit Constructor's workers with the training and equipment necessary to protect them from heat related exposures and illnesses.

TRAINING

All employees who are or may be exposed to potential heat related illnesses will receive training on the following:

- The environmental and personal risk factors that cause heat related illnesses;
- Conduit Contractors procedures for identifying, evaluating and controlling exposures to the environmental and personal risk factors for heat illness;
- The importance of frequent consumption of small quantities of water, up to 4 cups per hour under extreme conditions of work and heat;
- The importance of acclimatization;
- The different types of heat illness and the common signs and symptoms of heat illness;
- The importance of immediately reporting to Conduit Contractors, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in co-workers.
- Conduit Contractors procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary;
- Procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider;
- How to provide clear and precise directions to the work site.

SUPERVISOR RESPONSIBILITIES

- All supervisors will be provided a copy of this program and training documents prior to assignment of employees working in environments where heat exposures may occur.
- Supervisors will be provided the procedures to follow to implement the applicable provisions of this program.
- Supervisors will be provided the procedures to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.

PROVISION OF WATER

Employees shall have access to potable water. Water shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking the entire shift for a total of 2 gallons per employee per 8-hour shift. Employees may begin the shift with smaller quantities of water if effective procedures for replenishment of water during the shift have been implemented to provide employees one quart or more per hour.

ACCESS TO SHADE (NON-CAL / OSHA STANDARD)

Employees suffering from heat illness or believing a preventative recovery period is needed shall be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes. Such access to shade shall be permitted at all times. Shade areas can include trees, buildings, canopies, lean-tos, or other partial and/or temporary structures that are either ventilated or open to air movement. The interior of cars or trucks are not considered shade unless the vehicles are air conditioned or kept from heating up in the sun in some other way.

HEAT STRESS DISORDERS

Heat Rash (Prickly Heat)

Symptoms:

- Red blotches and extreme itchiness in areas persistently damp with sweat.
- Prickling sensation on the skin when sweating occurs.

Treatment:

- Cool environment.
- Cool shower.
- Thorough drying.

Heat rashes typically disappear in a few days after exposure. If the skin is not cleaned frequently enough the rash may become infected.

Heat Cramps

Symptoms:

- Loss of salt through excessive sweating.
- Cramping in back, legs and arms.

Treatment:

- Stretch and massage muscles.
- Replace salt by drinking commercially available carbohydrate / electrolyte replacement fluids.

Heat Exhaustion

Heat exhaustion occurs when the body can no longer keep blood flowing to supply vital organs and at the same time send blood to the skin to reduce body temperature.

Symptoms:

- Weakness.
- Difficulty continuing work.
- Headache.
- Breathlessness.
- Nausea or vomiting.
- Feeling faint or actually fainting.

Treatment:

- Call 911.
- Help the victim to cool off by:
 - Resting in a cool place.
 - Drinking cool water.
 - Removing unnecessary clothing.
 - Loosening clothing.
 - Showering or sponging with cool water.

It takes 30 minutes to cool the body down once a worker becomes overheated and suffers heat exhaustion.

Heat Stroke

Heat stroke occurs when the body can no longer cool itself and body temperature rises to critical levels.

Symptoms:

- Confusion.
- Irrational behavior.
- Loss of consciousness.
- Convulsions.
- Lack of sweating.
- Hot, dry skin.
- Abnormally high body temperature.

Treatment:

- Call 911.
- Provide immediate, aggressive, general cooling.
- Immerse victim in tub of cool water or;
- Place in cool shower; or
- Spray with cool water from a hose; or
- Wrap victim in cool, wet sheets and fan rapidly.
- Transport victim to hospital.

Do not give anything by mouth to an unconscious victim.

SAFE WORK PROCEDURES

Supervisors Responsibilities

Supervisors are responsible for performing the following:

- Give workers frequent breaks in a cool area away from heat.
- Adjust work practices as necessary when workers complain of heat stress.
- Oversee heat stress training and acclimatization for new workers and for workers who have been off the job for a period of time.
- Monitor the workplace to determine when hot conditions arise.
- Increase air movement by using fans where possible.
- Provide potable water in required quantities.
- Determine whether workers are drinking enough water.
- Make allowances for workers who must wear personal protective clothing (welders, etc.) and equipment that retains heat and restricts the evaporation of sweat.
- Schedule hot jobs for the cooler part of the day; schedule routine maintenance and repair work in hot areas for the cooler times of the day.
- Make available to all workers, cooling devices (hard hat liners/bibs/neck bands) to help rid bodies of excessive heat.

Workers

Workers are responsible for performing the following:

- Follow instructions and training for controlling heat stress.
- Be alert to symptoms in yourself and others.
- Determine if any prescription medications you're required to take can increase heat stress.
- Wear light, loose-fitting clothing that permits the evaporation of sweat.
- Wear light colored garments that absorb less heat from the sun.
- Drink small amounts of water – approximately 1 cup every 15 minutes.
- Avoid beverages such as tea or coffee.
- Avoid eating hot, heavy meals.
- Do not take salt tablets unless prescribed by a physician.
- Review Attachment 1 for additional information.

PROGRAM REVIEW

The Safety Director will periodically review this program for compliance with all applicable regulatory standards. The Safety Director has the overall accountability, responsibility and authority to implement manage and maintain this program. Any revisions, changes or updates will be provided to all employees.

Feedback

Employees are encouraged to inform Conduit Constructors of any hazards or unsafe conditions on any project without fear of retribution, retaliation, reprisal or punishment. Conduit Constructors will conduct periodic safety audits, open employee meetings and anonymous employee suggestion polls to improve working conditions and policies.

Attachment 1

Heat Illness Prevention Guidance for Workers

Awareness of heat illness symptoms can save your life or the life of a co-worker. The following provides valuable information concerning heat-related illnesses and preventative measures.

If you are coming back to work from an illness or an extended break or you are just starting a job working in the heat, it is important to be aware that you are more vulnerable to heat stress until your body has time to adjust. Let your employer know you are not used to the heat. It takes about 5-7 days for your body to adjust.

Drinking plenty of water frequently is vital for workers exposed to the heat. An individual may produce as much as 2 to 3 gallons of sweat per day. In order to replenish that fluid, you should drink 3 to 4 cups of water every hour starting at the beginning of your shift.

Taking your breaks in a cool shaded area and allowing time for recovery from the heat during the day are effective ways to avoid a heat-related illness.

Avoid or limit the use of alcohol and caffeine during periods of extreme heat. Both dehydrate the body.

If you or a co-worker start to feel symptoms such as nausea, dizziness, weakness or unusual fatigue, let your supervisor know and rest in a cool shaded area. If symptoms persist or worsen seek immediate medical attention.

Whenever possible, wear clothing that provides protection from the sun but allows airflow to the body. Protect your head and shade your eyes if working outdoors.

When working in the heat pay extra attention to your co-workers and be sure you know how to call for medical attention.

John Plott Co., Inc.

FALL PROTECTION POLICY

Purpose

This Fall Protection Policy is designed to provide guidance for all John Plott Co., Inc. job sites for establishing procedures to identify, evaluate, and control falls from elevations at all times. This program focuses on orientation, training, and enforcement to ensure fall protection guidelines are implemented and adhered to by all project personnel. The purpose of Fall Protection Policy is to provide maximum protection against falls.

The management of John Plott Co., Inc. has adopted a Fall Protection Policy to eliminate fall accidents in our operations. Management and supervision will be responsible and accountable for ensuring the success of the program by integrating this program into the company's operations.

Goal

The goal of this program is to eliminate all falls from elevations by identifying and managing fall exposures.

Responsibility

All levels of management and supervision are responsible for supporting and enforcing this program to ensure 100% compliance by all personnel. Management, estimating, scheduling, and project management personnel are responsible for pre-planning safety into the job by identifying and predicting potential fall exposures both during the preconstruction phase and during construction. Each discipline shall plan safety into the job with priorities placed on engineering solutions to the hazards.

Personal fall protection systems shall only be used as a backup method to primary fall protection systems, such as guardrails, or when there is no other feasible or practical means for safely accomplishing the work.

Accountability

All levels of management and supervision shall be accountable for the safety of job site personnel. Job site supervision is directly responsible for using the Fall Protection Policy as a means to control falls from elevations. Management teams shall have the goal of zero fall-related accidents for each job site. Measurement of performance will take into account actual results related to this goal. The direct costs of any accident will be charged to the cost of the job site involved. Management, estimating, and scheduling personnel shall be accountable for pre-planning, designing, budgeting, and scheduling Fall Protection into each job site.

Pre-Construction Planning

Pre-planning must begin during the pre-bid phase of each job site and continue.

1. Pre-Bid Phase:
 - A. Management:

Management shall review plans for job sites during the pre-bid phase to determine the nature and scope of Fall Protection needs, as well as any necessary design changes and engineering controls needed.
 - B. Estimating:

Estimating personnel must include the cost for Fall Protection into the bid / proposal. Input from management should be utilized as necessary. The cost of subcontract bids should include the cost of implementing an acceptable Fall Protection Policy.
 - C. Contract Administration:

The subcontract should include language requiring a Fall Protection Policy.

2. Pre-Startup:
 - A. Management:

The management team shall hold a review meeting prior to startup of any work on a job site. The purpose of the meeting shall be to review plans and to identify and evaluate all potential fall exposures in each phase of construction.
 - B. Supervisors:

The regular Fall Protection inspection must be incorporated into an overall Fall Protection Policy.
 - C. Scheduling:

Design changes, engineering controls, and installation of fall protection devices, i.e. anchorages, guardrails, etc., must be incorporated into the schedule to ensure completion in a timely manner.

Pre – Task Safety Analysis

Supervisors must analyze all elevated tasks prior to assigning work to determine all existing and potential fall protection needs and to ensure adequate fall protection systems are provided.

Employee Safety Training

Pre-task safety instruction must be given to each person assigned to work in elevated areas prior to commencing work activities. New hire safety orientation training must be conducted for all new hires immediately upon the beginning of employment. The orientation shall include the company's Fall Protection Policy, procedures, and work rules. Weekly safety training will be held with all field crews. Fall Protection should be included in these training sessions on a regular basis or when an upcoming work assignment may involve unusual or non-routine fall exposures. Written documentation of all employees training shall be maintained.

Procedures

Fall protection systems shall include, but are not limited to; the following fall exposure areas:

- A. Building construction activities
 - Formwork
 - Reinforcing steel deliveries, rigging, erection
 - Concrete placement
 - Structural / miscellaneous steel erection
 - Precast concrete erection
- B. Scaffolding / Hoisting activities
 - Aerial lifts
 - Movable ladders
 - Crane erection / dismantling
 - Hoisting areas including platforms, docks, chutes
- C. Floor / Wall penetrations and exposures
 - Elevator shafts
 - Stairways
 - MEP shafts
 - Perimeter edges
- D. All exterior skin installation including, but not limited to, roofing, stone, masonry, waterproofing, and glazing
- E. Excavation / Trenching

John Plott Co., Inc.

EXCAVATION AND TRENCHING PROGRAM

Introduction

John Plott Co., Inc. incorporates the following Excavation and Trenching Program to follow during day-to-day operations. The OSHA requirements for a “Competent Person” are met by the designated trained employees of John Plott Co., Inc.

Purpose

Excavation and Trenching safety problems can be avoided by hazard awareness and recognition by employees on the worksite. John Plott Co., Inc. provides the opportunity for designated employees to attend “Competent Person” training to understand the potential for a cave-in of a trench, and methods to protect employees from a cave-in.

Policy

John Plott Co., Inc. takes the position that cave-ins are preventable, and through training of employees in hazard recognition, a safe and efficient method to provide a safe work site is devised prior to excavation and maintained throughout the length of the job.

Scope

The Excavation and Trenching Safety Program of John Plott Co., Inc. involves the orientation of current employees, and all newly hired employees to recognize hazards associated with excavation and trench work, and the proper methods of providing protection to employees working within the excavation or trench.

Items included in this Program are:

- A. Safety Orientation
- B. “Competent Person” Training
- C. Refresher Training (if required)
- D. Soils Analysis Review
- E. Use of Protective Systems Review

Responsibilities

- A. John Plott Co., Inc. provides training in safe methods of excavation and trenching, and will determine the employees who have the authority to control any type of excavation work.
- B. The “Competent Person” has the training required by OSHA to recognize potential hazards in excavation work, and has the authority to take corrective action, including but not limited to, stopping the work, directing the employees to exit the excavation, and providing safe procedures.
- C. Employees of John Plott Co., Inc. are capable of recognizing potential unsafe conditions and report such conditions to the “Competent Person” or the Safety Coordinator immediately.
- D. Subcontractors performing work for John Plott Co., Inc. shall have a Competent Person available on the worksite, and shall employ the safe methods of protecting employees that are required by OSHA.

Procedures

- A. General Information
Excavating and Trenching is one of the most dangerous types of work / activity in the construction industry. To prevent illness or death to employees, John Plott Co., Inc. provides several methods of protection that are available to the “Competent Person”. These items are utilized when excavations are made in depths greater than 5 feet, and at locations anywhere site conditions may warrant a protection system.
- B. Regulatory Requirements

John Plott Co., Inc.

CONFINED SPACE PLAN

This written plan is required for all employers with employees under its direction who will enter a permit space.

This plan must be made available prior to and during entry operations for inspection by employees and their authorized representatives.

Prior to beginning work at a jobsite, a competent person must identify all confined spaces in which one or more employees may work and must identify each space that is a permit space.

If the workplace contains one or more permit spaces, the employer who identifies, or receives notice of, a permit space must:

- Inform exposed employees by posting danger signs or by any other equally effective means, of the existence and location of, and the danger posed by, each permit space;
- Inform, in a timely manner and in a manner other than posting, its employees' authorized representatives and the controlling contractor of the existence and location of, and the danger posed by, each permit space.

General Procedures for Entering a Confined Space Area

- Have adequate ventilation and lighting in place.
- Always check oxygen, explosive and toxic gas levels with certified testing equipment.
- Wear proper personal protective equipment necessary for task at hand.
- Have safety "attendant" in place at all times.
- Wear full body harness with lifeline attached when necessary for work that generates toxic fumes.
- Take frequent breaks and come up for fresh air.

Emergency Procedures for Injured Person

- Follow normal procedures for injured person and fire (call 911).
- Never enter without testing oxygen, explosive and toxic gas levels.
- Wear proper personal protective equipment.
- The man basket and/or full body harness shall be used for retrieval of the injured worker.
- Never enter the area without assistance and a safety "attendant" in place.
- If you are not sure of the situation, wait for the proper emergency medical personnel.

***Note: Over 60% of workers that die in a confined space area are attempting to rescue other workers.

***Note: Please refer to Part 1926 Subpart AA for specific safety rules and regulations for Confined Space Entry.

Confined Space Entry Plan

Before entering the confined space, make sure that there is adequate ventilation and lighting. Oxygen levels, explosive levels and toxic fume levels shall be tested, before entering and periodically while in the confined space. The proper personal protective equipment (safety glasses, hard hats, hard soled shoes, proper respirator required for task at hand, etc.) shall be worn AT ALL TIMES.

The safety “attendant” shall be in place at all times while work is being performed. If the safety “attendant” should leave his area for any reason, the alternate safety “attendant” shall be in place before work continues.

Anyone required to work in a confined space where welding, waterproofing, grinding of concrete, or any other related activity that generates toxic fumes will be required to wear a full body harness with life line attached AT ALL TIMES.

Before entering the confined space area, the following procedures must be reviewed and understood by each employee.

Atmosphere

The atmosphere must be tested each time before entering a confined space, especially during times when the task at hand creates toxic fumes and/or could cause an oxygen enriched or depleted environment.

- A. The normal oxygen level is approximately 21%. The minimum oxygen level to enter a confined space without a self-contained breathing apparatus is 19.5%. If the oxygen level is greater than 23.5%, the environment is oxygen enriched, and flammables and combustibles burn more violently and can ignite more rapidly.
- B. Only a trained, qualified person shall test the atmosphere for oxygen, explosives and gases. The following gases are typical gases that may be found in a confined space:
 - Hydrogen sulfide
 - Carbon monoxide
 - Methane
 - Carbon dioxide
- C. Always test the bottom, middle, and top of the confined space area. Some gases are lighter or heavier and settle at different elevations.

Ventilation

Ventilation is the preferred method of eliminating atmospheric hazards over wearing respirators.

- A. Ensure that there is adequate ventilation and lighting.
- B. Maintain ventilation and lighting AT ALL TIMES.
- C. NEVER use pure oxygen to ventilate an atmosphere.
- D. If the oxygen level is below 19.5% rapid fatigue will be experienced.
- E. If the oxygen level is above 23.5%, the atmosphere becomes extremely flammable and combustible. If a fire should develop, everything will burn or ignite rapidly.

Attendant

- A. A safety “attendant” shall be within voice and/or radio contact with all workers inside the confined space AT ALL TIMES. The safety “attendant” should not leave his position for any reason while an employee is in a Confined Space.
- B. The safety “attendant” shall be trained in the job site emergency plans for fire and/or injured person, as well as, have contact with the job site 911 contact person for an emergency.
- C. The “safety attendant” shall not perform any other duties other than to monitor the workers inside the Confined Space.
- D. The safety “attendant” shall have a fire extinguisher on hand at all times.
- E. The safety “attendant” shall be highly distinguishable from the other workers in the area.

Respiratory Protection

- A. The proper respirator must be worn to match the task at hand.
- B. The workers must be properly trained in how to correctly wear and inspect the respirator they are required to wear, prior to use.
- C. Any welding, cutting, brazing, painting, grinding, waterproofing, etc., which may produce toxic gases and/or deplete or enrich the oxygen levels in the confined space require that all workers inside the confined space wear full body harness with a life line attached in the event of an emergency with retrieval necessary. These operations may also create a combustible atmosphere, which will also require the full body harness with the lifeline attached.
- D. If any operation causes an oxygen level of less than 19.5% and/or creates a combustible atmosphere where proper ventilation cannot increase the oxygen to acceptable levels, a self-contained breathing apparatus, may be required to be worn by all workers. If a self-contained breathing apparatus is worn, proper training will be required for all workers, including the safety “attendant”.

Confined Space Entry Team

- A. “Entrant”

All workers / entrants of the confined space shall be thoroughly trained in the Confined Space Plan.
- B. “Attendant”

All workers / entrants shall be constantly monitored by an attendant trained in the Confined Space Plan.
- C. “Entry Supervisor”

Entry Supervisors shall supervise all Confined Space operations. Entry Supervisors shall be trained in the Confined Space Plan.

John Plott Co., Inc.

RESPIRATOR POLICY

Introduction

Occasionally a few employees of John Plott Co., Inc. may be asked to enter into work areas where they will need to wear respirators for protection. Respirators protect employees from contaminated dusts, fogs, fumes, mists, gases, smokes, sprays, and vapors. When possible, John Plott Co., Inc. will take appropriate steps to eliminate such hazards by using proper engineering controls, such as enclosures, specialized ventilation, etc. However, when these steps and/or controls are not feasible, employees selected by John Plott Co., Inc. may be required to use respirators.

Only specially trained and designated employees will be permitted to wear respirators. All activity involving employee use of respirators is strictly governed and regulated by this Written Respirator Policy. This Policy was prepared by John Plott Co., Inc. to assist with complying with OSHA regulations 1926.103 & 1910.134.

Purpose of Respirator Use

As noted above, only a few specially trained employees will be asked to wear respirators ... and then only in special situations. Any employees wearing respirators must always follow this Policy. Failure to follow this Policy could lead to termination of employment.

Training and Instruction for Employees

Both supervisors and employees will be trained in the Respirator Policy. These employees will attend individualized training sessions and will be required to review written material, view training videotapes, and/or participate in other training activities as directed by the Company.

The Company will keep records concerning their training. Specifically, Company records will show the names of employees attending the training, the dates and location of the training, and the identity of the trainer.

Training will provide employees an opportunity to:

- Handle the respirator
- Have the respirator properly fitted
- Test its face piece-to-face seal
- Wear the respirator in normal air for a long period to become familiar with it
- Wear the respirator in a test atmosphere

Each employee must receive fitting instructions, which include:

- How to wear the respirator
- How to adjust it
- How to determine proper respirator fit

Employees will also be trained and otherwise informed of the limits of respirators.

Inspection of Respirators

John Plott Co., Inc. will conduct frequent inspections of respirators to make sure that the respirators are properly selected, used, cleaned, and otherwise maintained. Air cylinders must be fully charged according to manufacturer's instructions. Inspections must ensure that all regulators and warning devices are functioning properly, as they were designed.

Respirator inspections shall include the following:

- Check of tightness of all connections and face piece, headbands, valves, connecting tubes and canisters.
- Check of all rubber or elastic parts for pliability or deterioration
- Stretching all rubber or elastic parts with a massaging motion

Cleaning, Disinfection and Storage

All respirators must be regularly cleaned and disinfected. Employees must comply with the manufacturer's recommendations for cleaning and disinfection. Respirators used by more than one employee must be thoroughly cleaned after each use.

While not in use, respirators must be stored in a clean, convenient, and sanitary location. They are not to be left lying around the facility. Respirators must be kept away from dust, sunlight, heat, extreme cold, excessive moisture, and chemicals. Respirators used for emergency situations must be easily accessible at all times and stored in special compartments - not in toolboxes or lockers (unless stored in a carrying case).

All respirators must be routinely inspected during cleaning and disinfection. Any parts found to be worn, broken, or deteriorated must be promptly replaced. Any broken respirator must be tagged accordingly and taken out of service.

Respirators used for emergency situations will be automatically inspected after each use and once each month.

Employer Surveillance and Evaluation

John Plott Co., Inc. will regularly survey the conditions of all work areas and will make an assessment of any employee exposure or stress. This surveillance shall be ongoing. Any evidence of employee exposure or stress shall be reported to upper management and the local health care professional involved with this Policy.

The Company will also conduct regular inspections of respirator procedures and practices. These inspections will help the Company evaluate the effectiveness of this Policy and ensure the safety of all affected employees.

Special Rules - Face Piece Seals

All masks and face pieces must make a proper, airtight seal. Respirators shall not be worn if it is not possible to obtain a proper seal. No beards, sideburns, or anything that projects under the face piece that could compromise a proper seal, are permitted.

Employees who need to use corrective lenses must be extremely careful to make sure that the glasses do not prevent a proper seal. Employees must not wear contact lenses in contaminated atmospheres.

Medical Evaluation of Participating Employees

Employee assigned to tasks requiring use of respirators must first pass a physical examination given by a physician. The examination will ensure that the employee is physically able to perform the related work and use the respirators. Each employee trained to use a respirator will have his or her physical ability and medical status reviewed by the physician at least once each year. These evaluations shall be documented and kept with other records from this Policy, such as training records.

29 CFR 1910.134 Appendix D 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:

- Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
- 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.
- Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed. 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.
- Keep track of your respirator so that you do not mistakenly use someone else's respirator.

John Plott Co., Inc.

SILICA SAFETY POLICY

Policy Statement

Exposure to silica can lead to silicosis, a serious and sometimes fatal respiratory disease. Silicosis develops from being exposed to and breathing in silica dust. Excessive amounts of silica dust may be generated during activities such as: sandblasting, rock drilling, roof bolting, foundry work, stonecutting, drilling, quarrying, brick / block / concrete cutting, gunite operations, lead-based paint encapsulate applications, asphalt paving, cement products manufacturing, demolition operations, hammering, and chipping and sweeping concrete or masonry.

The following policy is designed to protect employees who may come into contact with silica during the course of their work. A Silica Compliance Flow Chart is also included in the following pages for assistance.

This policy is designed for John Plott Co, Inc. Construction Employees. Subcontractors must be required to submit and have approved by John Plott Co, Inc., their company's Silica Exposure Prevention Program prior to start of work.

Procedures

In order to determine whether a product contains silica, the SDS must be obtained and evaluated. In the event silica is present in products on-site, the following safe working procedures shall be followed to eliminate or control silica dust exposure:

John Plott Co, Inc. will always try to follow Table T-1 (see following pages) from OSHA's Silica standard when possible. When this is not possible, the following procedures will be executed:

1. Always wet the dry materials and surfaces before cutting, chipping, grinding, sanding, sweeping or cleaning. This engineering control shall be used to the greatest extent feasible, so that airborne concentrations of silica are minimized.
2. Engineering controls must be considered as a primary means to eliminate the hazard, whenever feasible.
3. Industrial hygiene exposure monitoring must be conducted in order to confirm that the engineering and administrative controls in place are effective and whether personal protective equipment (PPE) is or is not required.
4. If PPE is required, refer to John Plott Co, Inc. Respiratory Protection Program for specific guidelines.
5. After working with products that contain silica, each individual will be required to thoroughly wash their hands before eating, drinking or smoking. Eating, drinking or smoking near silica or in a silica-regulated areas is strictly prohibited.
6. The Project Safety Orientation should include information on potential areas for exposure and the hazards of silica exposure.
7. Use power tools with built-in high-efficient particulate air (HEPA) dust extraction units, or equivalent controls as specified by manufacturer, to capture the dust before it is released into the exhausted air.
8. John Plott Co, Inc. will not allow the use of any compound used for abrasive cleaning that contains more than 1% silica. Employee sampling must be conducted to verify that concentrations released from the media being finished does not exceed allowable OSHA PEL's. For abrasive blasting, replace silica sand with less toxic materials. The National Institute for Occupational Safety and Health highly discourages the use of sand or any abrasive with more than 1% crystalline silica in it. As an alternative, garnet, slag and steel grit and shot may be suitable substitutes.

If an employee is required to use a respirator due to silica exposure for more than 30 days, the employee must be offered a medical evaluation including chest x-ray exam to establish a medical baseline.

All subcontractors are to supply any exposure monitoring, testing, or engineering information regarding silica exposure in their operations prior to beginning work. An example may be the masonry contractor using brick / block saws and associated experience data that the subcontractor has obtained.

Table 1: Specified Exposure Control Methods for Silica in Construction

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor	
		≤ 4 hrs / shift	> 4 hrs / shift
Stationary Masonry Saw	Use saw equipped with an 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
Handheld Power Saws (any blade diameter)	Use saw equipped with an 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 enclosed area	None APF 10	APF 10 APF 10
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
Walk behind Saws	Use saw equipped with an 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 enclosed area	None APF 10	None APF 10
Drivable Saws	For tasks performed outdoors only: Use saw equipped with an 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
Rig Mounted Core Saws or Drills	Use tool equipped with an 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
Handheld and Stand Mounted Drills (including impact and rotary hammer drills)	Used 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
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
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 from dust suppression on drill bit	None None	None None
Jackhammers and Handheld Power 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 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 enclosed area	None APF 10 None APF 10	APF 10 APF 10 APF 10 APF 10
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 airflow per inch of wheel diameter and have a filter with 99% efficiency or greater and a cyclonic pre-separator or filter cleaning mechanism	APF 10	APF 25

Table 1: Specified Exposure Control Methods for Silica in Construction

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor	
		≤ 4 hrs / shift	> 4 hrs / shift
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 ariflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-seperator or filter cleaning mechanism - When used outdoors - When used indoors or in enclosed area	None None None	None None APF 10
Walk Behind Milling Machines and Floor Grinders	Use machine equipped with integrated water delivery sysytem 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 a 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
Small Drivable Milling Machines (less than 1/2 lane)	Use a machine equipped with supplemental water sprays deigned to suppress dust. Water must be combined with a surfactant Operate and maintain machine to minimize dust emissions	None	None
Large Drivable Milling Machines (1/2 lane and larger)	For cuts of any depth on asphalt only: Use machine equipped with an 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 an 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 sprays deigned to suppress dust. Water must be combined with a surfactant Operate and maintain machine to minimize dust emissions	None None None	None None None
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, conveyors, 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 sattion	None	None
Heavy Equipment and Utility Vehicles used to Abrade or Fracture Silica Containing Materials (i.e. 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 suppression as necessary to minimize dust emissions	None	None
Heavy Equipment and Utility Vehicles for Tasks Such as Grading and Excavating But Not Including: Demolition, 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

APF 10	N95 or N100 Filtering Facepiece Respirator, or 1/2 Mask Elastimeric Respirator with particulate filter
APF 25	Powered Air Purifying Respirator with particulate filter, or Suppled Air Respirator with hood

SILICA COMPLIANCE FLOWCHART

Follow the flowchart to stay in compliance with OSHA's new silica rule

Action level (AL):
25 µg/m³, 8-hour time-weighted average (TWA)

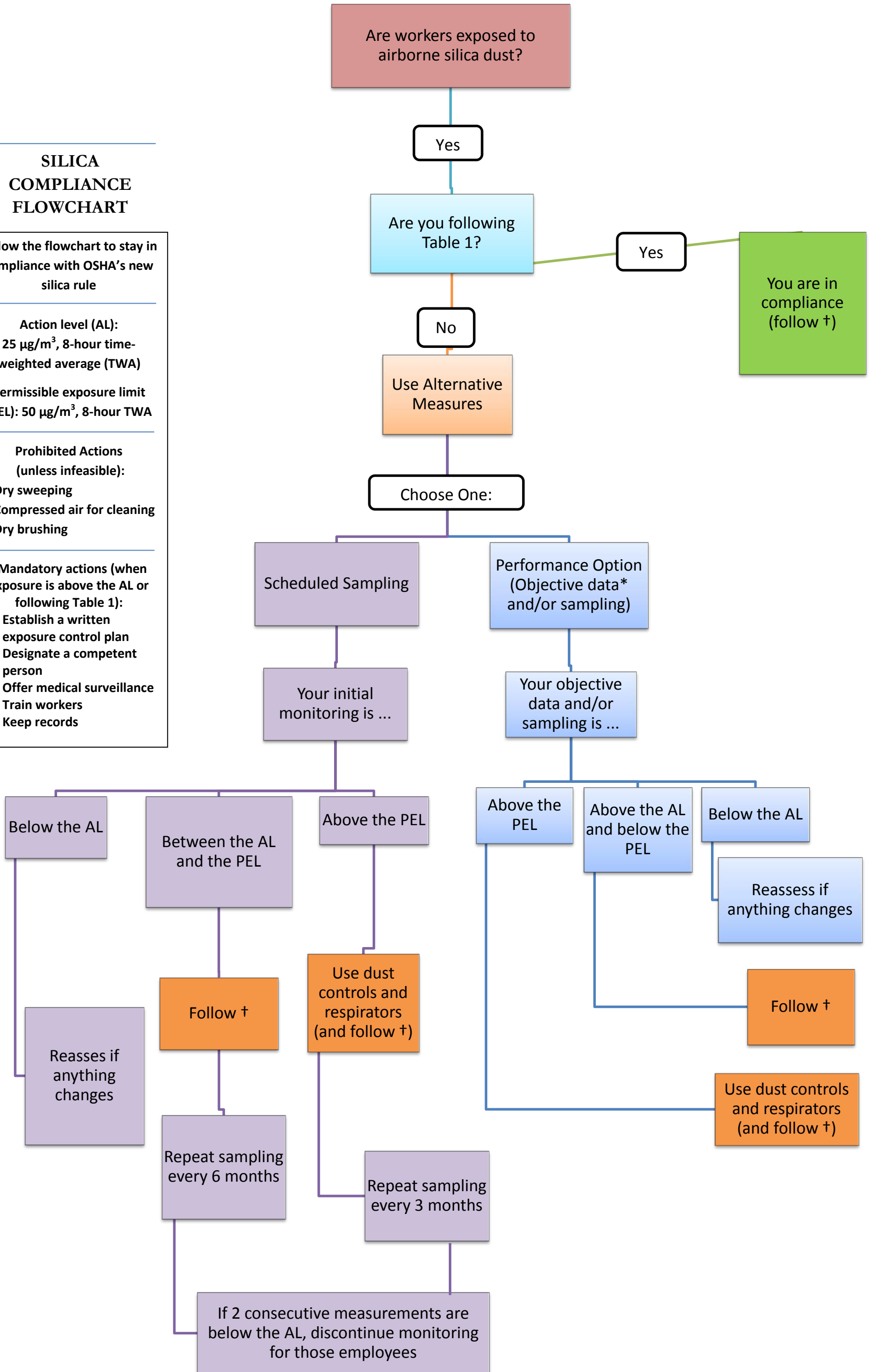
Permissible exposure limit (PEL): 50 µg/m³, 8-hour TWA

Prohibited Actions (unless infeasible):

1. Dry sweeping
2. Compressed air for cleaning
3. Dry brushing

†Mandatory actions (when exposure is above the AL or following Table 1):

1. Establish a written exposure control plan
2. Designate a competent person
3. Offer medical surveillance
4. Train workers
5. Keep records



*Objective Data: Information from industry-wide surveys demonstrating employee exposure to respirable crystalline silica associated with a process, task or activity. The data must reflect workplace conditions resembling work practices and environmental conditions in the employer's current operations.

John Plott Co., Inc.

LOCK OUT / TAG OUT PROGRAM

General

Lock Out / Tag Out is the preferred method of isolating machines or equipment from energy sources. The following simple procedure is provided for use in both lock out / tag out programs. This procedure may be used when there are limited numbers or types of machines or equipment or there is a single power source. For more complex systems, a more comprehensive procedure will need to be developed, documented, and utilized.

Purpose

This procedure establishes the minimum requirements for the lock out / tag out of energy isolating devices. It shall be used to ensure that the machine or equipment is isolated from all potentially hazardous energy and locked out or tagged out before employees perform any servicing or maintenance activities where the unexpected energization, start-up or release of stored energy could cause injury.

Responsibility

Appropriate employees shall be instructed in the safety significance and importance of the lock out / tag out procedure. Each new or transferred employee who is affected and other employees whose work operations are or may be in the area shall be instructed in the purpose and use of the lock out / tag out procedure.

Preparation for Lock Out or Tag Out

Make a survey to locate and identify all isolating devices to be certain which switch(es), valve(s), or other energy isolating devices apply to the equipment to be locked out or tagged out. More than one energy source (electrical, mechanical, or others) may be involved.

Sequence of Lock Out / Tag Out System Procedure

1. Notify all affected employees that a lock out / tag out system is going to be utilized and the reason therefore. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the hazards thereof.
2. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.).
3. Operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s). Stored energy, such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc., must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.
4. Lock out / tag out the energy isolating devices with assigned individual lock(s) and/or tag(s).
5. After ensuring that no personnel are exposed and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate.

CAUTION: Return operating control(s) to "neutral" or "off" position after the test.

6. The equipment is now locked out or tagged out.

Restoring the Machines and/or the Equipment to Normal Production Operations

1. After the servicing and/or maintenance is complete and equipment is ready for normal production operations, check the area around the machines or equipment to ensure that no one is exposed.
2. After all tools have been removed from the machine or equipment, guards have been reinstalled, and employees are in the clear, remove all lock out / tag out devices to restore energy to the machine or equipment.

Procedure involving more than one Person

In the preceding steps, if more than one individual is required to lock out / tag out equipment, each shall place his/her own personal lock out device / tag out device on the energy isolating devices(s). When an energy isolating device cannot accept multiple locks or tags, a multiple lock out / tag out device (hasp) may be used. If lock out is used, a single lock may be used to lock out the machine or equipment with the key being placed in a lock out box or cabinet, which allows the use of multiple locks to secure it. Each employee will then use his/her own lock to secure the box or cabinet. As each person no longer needs to maintain his or her lock out protection, that person will remove his/her lock from the box or cabinet.

Basic Rules for using Lock Out / Tag Out System Procedures

All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy isolating device where it is locked out or tagged out.

John Plott Co., Inc.

VEHICLE SAFETY POLICY

Employees of John Plott Co., Inc. are required to adhere to the following guidelines when operating any vehicle leased, rented, borrowed or owned by John Plott Co., Inc. or when operating a personal vehicle for company business.

- All drivers will be held accountable for safe operation and maintenance of company vehicles and for the safe operation of a personal vehicle for company business.
- Only **approved** drivers may operate company vehicles. Drivers of personal vehicles on company business must also be approved by John Plott Co., Inc.
- All drivers must submit a copy of their driver's license to the John Plott Co., Inc. so that a driver's Motor Vehicle Record may be reviewed for motor vehicle history.
- Motor vehicle records will be reviewed 2-times each year. If at this time, there are excessive violations or accidents found, driving privileges of company vehicles may be revoked for a period of time to be determined by John Plott Co., Inc.
- The Shop Foremen **and** the Driver of the vehicle are responsible to ensure that maintenance of Company vehicle and cleanliness of Company vehicle and the safety of the Company vehicle are maintained at all times.
- Any vehicle repair or maintenance expense in excess of \$100.00 for any single expenditure or in the aggregate for any quarter must be approved in advance by your supervisor.
- A Supervisor's Report of Accident for Vehicles must be completed and sent to the main office whenever an accident has occurred involving any company vehicle. This report is to be completed by the supervisor responsible for the vehicle no matter who is at fault. A copy of the police report should be attached, along with the estimates from the repair shop.
- Company vehicles driven for personal use are to be driven only by the approved driver who is responsible for the vehicle. Company drivers who are on the approved driver's list may request to have a spouse placed on the approved drivers list by submitting the required information to obtain an MVR report. Other family members and friends shall not operate a company vehicle.
- Operating a company vehicle while under the influence of alcohol, drugs, etc. shall result in immediate termination of employment.
- Employees who use an auto allowance and/or mileage reimbursement in lieu of a John Plott Co., Inc. company provided vehicle shall provide proof of auto insurance and limits for review and approval by John Plott Co., Inc.
- Any and all accidents, incidents or near misses must be reported to the office within 1 hour.
- Failure to follow any of the policies listed above may be grounds for termination of driving privileges or dismissal from employment.

**JOHN PLOTT COMPANY, INC.
VEHICLE SAFETY POLICY & DRIVER GUIDELINES**

The following additional safety measures are required by our Insurance Carrier to be added as supplemental requirements to our Personal Policy and Safety Manual regarding the vehicle safety.

Employees of John Plott Company, Inc. are required to adhere to the following guidelines when operating any vehicle owned, leased, rented or borrowed by John Plott Company, Inc. or when operating a personal vehicle for company business. Failure to follow any of the following policies or guidelines may be grounds for termination of driving privileges or dismissal from employment.

Operating a company vehicle under the influence of alcohol or drugs shall result in immediate termination of employment

Cell phone texting while driving is strictly prohibited

Seat belt usage is mandatory for all occupants including back seat occupants

Only approved drivers are allowed to operate company vehicles. All drivers must submit a copy of their driver's license so that a driver's motor vehicle record may be reviewed for a history of violations and accidents. MVR's will be reviewed at least annually and depending on violations and accident history a driver employee can be subject to a range of disciplinary actions including reprimand, required additional drive training, suspension of driving privileges, or termination of employment.

DRIVER GUIDELINES

All Designated drivers for John Plott Company, Inc. shall comply with the following guidelines:

1. No Driver shall have any major violation within the previous three (3) years
2. A major violation is defined as follows:
 - a. Driving under the influence of alcohol or drugs
 - b. Reckless driving
 - c. Leaving the scene of an accident
 - d. Speeding over 25 MPH of posted limit
3. All drivers shall have less than a maximum of two (2) moving violations in the past three (3) years in combination with one (1) at fault accident
4. All drivers shall have less than a maximum of three (3) moving violations in the past three (3) years with no at fault accident
5. No driver shall have more than a maximum of two (2) at fault accidents in the past three (3) years with no moving violations

A supervisor's report of accident for vehicles must be completed and sent to the main office whenever an accident has occurred involving any company vehicle. This report is to be completed by the supervisor responsible for the vehicle no matter who is as fault.

Company vehicles driven for personal use are to be driven only by the approved driver who is responsible for the vehicle. No other person, including family members, are allowed to operate a company vehicle.

Employees who use an auto allowance and/or mileage reimbursement in lieu of a company provided vehicle shall provide proof of auto liability insurance and limits for review and approval

Any and all accidents or incidents must be reported to the office within one (1) hour

No employee shall operate vehicles without adequate training and proper authorization

Drivers must not take chances. To arrive safely is more important than to arrive on time.

At all times be cautious of other drivers on the road. Display a positive company image while driving any vehicle

Additional time and care should be taken any time when in reverse or backing up a vehicle to check, double check and to make sure no obstacles, pedestrians, equipment or other vehicles are in the way to assure it is safe to back up before proceeding.

Positively NO road rage regardless of who is at fault

Positively no tailgating. Maintain a proper distance between you and all other drivers

I, the undersigned, hereby acknowledge that I have read the foregoing guidelines and hereby agree to comply with same and shall immediately notify any matters that are inconsistent with these guidelines to John Plott Company, Inc.

Signature _____

Date _____

John Plott Co., Inc.

CELL PHONE AND ELECTRONIC DEVICE POLICY

Policy Statement

All employees of John Plott Co., Inc. are required to adhere to the following guidelines while using a personal mobile phone or company mobile phone while at work or conducting any company business. For purposes of this policy, the term “cell phone” or “mobile phone” is defined as any handheld electronic device with the ability to receive and/or transmit voice, text or data messages without a cable connection.

Purpose

The purpose of this policy is to provide guidelines for the use of cell phones or data devices for company business. In addition, this policy is designed to provide guidance to employees regarding the proper use of cellular devices (phones, PDA's, etc.) for voice or data communication; to ensure that the use of cellular technology for company business is correctly authorized and appropriate.

Management Responsibility

- Supervisors are responsible for educating subordinates about appropriate cellular telephone procedures and monitoring their usage.
- The Manager will review this policy with any employee that is issued a cell phone.
- Management will review monthly cellular telephone bills of responsible employees to determine appropriate usage.
- Management will ensure employees are aware of the importance of protecting confidential and sensitive information held while using a cell phone.

Employee Responsibility

- Employees assigned company supplied cell phones are responsible for compliance with all regulations and policies.
- Employees using company cell phones are responsible for securing them. Losses shall be reported immediately to the appropriate Supervisor.
- Employees may be held liable for lost, stolen, or damaged cell phone equipment or accessories.
- Employees will not store any customer or confidential information on their cell phones.
- Non-exempt employees must have prior approval before using their cell phones for wireless handheld devices for business purposes after regularly schedules work hours.
- Misuse or abuse of this policy may result in disciplinary action, up to and including dismissal from service.

General Use at Work

While at work, employees should limit mobile phone use to company business. Employees should restrict personal calls, regardless of the phone being used to while at lunch or while on scheduled breaks. Excessive personal phone calls are counterproductive and distracting to other workers.

Construction Sites

Mobile phones shall not be used while on constructions sites if the use of the mobile phone creates an unsafe condition. Examples include but are not limited to:

- Working from heights
- Working near heavy equipment
- Working in roadways

While Driving

It is against John Plott Co., Inc. policy to use a hand held mobile phone while driving if you are a novice driver, a bus driver or if you are driving a vehicle which requires a CDL.

It is and against John Plott Co., Inc. policy to text while driving ANY vehicle.

It is against Federal Law and against John Plott Co., Inc. policy to use any mobile or cellular device while driving a vehicle which requires a CDL unless the device is 100% hand free.

Safe Use Guidelines

Employees must follow the guidelines outlined below to insure the safe use of all cell phone equipment.

- Employees should refrain from using of cell phones when driving.
- Allow incoming calls to go to voice mail whenever possible.
- Check voice mail and return calls only when the vehicle is off the road.
- Do not text message while driving.
- Pull off the road to a safe place such as a parking lot to make necessary calls.
- Always dial the phone when the vehicle is not moving.
- Suspend cell phone usage during hazardous driving situations, such as heavy traffic or bad weather.
- Never take notes while driving.
- Keep any necessary conversations as brief as possible while on the road.
- Use speed dialing or voice dialing as much as possible.
- Use the phone only with hands-free equipment.
- Never look up phone number or other information while driving.
- Refrain from conducting stressful conversations while driving.
- Employees are prohibited from texting while operating a vehicle on company business.
- Safe driving is always important, and must take priority over cell phone conversations.
- Employees who are charged with traffic violations resulting from the use of their cell phones while driving will be solely responsible for all penalties that result from such actions.

Other Restrictions

Employees must adhere to all federal, state, or local rules and regulations regarding the use of cell phones while driving. Accordingly, employees must not use cell phones if such conduct is prohibited by federal, state, or local laws, regulations or other ordinances.

The use of personal cell phones while at work may present a hazard or distraction to the user and or coworkers. This policy is meant to ensure that cell phone use while at work is both safe and does not disrupt business operations. Unless otherwise authorized, employees may only use personal cell phones for emergency purposes.

John Plott Co., Inc.

JOBSITE START-UP PROGRAM

This Program consists of best practices for start-up of all projects, whether in controlled access areas on permanent projects or on mobile projects. John Plott Company, Inc. personnel should determine their designated work zones/areas and must always be aware of specific client requirements that may supercede the programs and procedures listed on the following pages.

JOBSITE SAFETY SURVEY

Review the plans and site for any potential unsafe conditions. This review should include a thorough review of deep excavations, unprotected openings, perimeter and interior fall hazards, access to the site by non-employees and visitors, means and methods of construction, and specified materials, as well as any other potentially unsafe conditions. Safety procedures, including scheduled inspections, should be developed for each potentially unsafe condition identified.

Some items to consider for the jobsite safety survey ...

- Emergency routes (written and visual maps)
- Muster points / Locations
- Location of Fire Stations
- Location of Clinics and/or Hospitals
- Emergency phone numbers (**verify 9-1-1 is available**)
- Perimeter site security fence
- Traffic control requirements
- Designated area for parking vehicles (out of the way of work area)
- Storm water control
- Overhead / underground power and utility lines
- Means and methods of monitoring weather
- After-hours contact information
- Etc.

EMERGENCY PLAN

Establish emergency procedures for all conditions such as:

- Injuries
- Fatalities
- Fires
- Explosions
- Collapse
- Gas Release
- Hazardous Material Exposures
- Tornados / Hurricanes
- Violence in the workplace
- Bomb Threats
- Electrical emergencies

These procedures should be developed in conjunction with the local police, local fire and local rescue authorities. All site management personnel should be trained and/or educated on their role during emergency procedures.

In the event of any emergency, notify your supervisor and the main office immediately. No public statements are to be made by any employee.

JOBSITE BULLETIN BOARD

Establish a jobsite bulletin board and place in plain view of all employees. It is essential that the following information be posted for the duration of the jobsite:

- Occupational Safety and Health Poster
- Equal Employment Opportunity Commission Poster
- Company EEO Poster or Policy
- Wage and Hour Division, U.S. Department of Labor Poster
- Panel of Physicians
- Bill of Rights
- OSHA 300 Form
- Any Other State or Local Government Posting Requirements
- Emergency Action / Evacuation Plans / Muster locations
- Emergency phone numbers

Other recommended items for the jobsite bulletin board are SDS listings, safety posters, and any pertinent jobsite safety information, updated copy of Company Safety Manual.

JOBSITE SIGNS

JOBSITE START-UP SIGNS

The following signs should be posted on the jobsite (*see next two pages for templates*):

- Posted Safety Rules
- All vehicles are subject to search
- Alcohol & Substance Abuse
- No Trespassing
- Proper PPE Required Beyond This Point
- All Visitors Must Sign In at Office
- No Firearms, Drugs, or Alcohol Allowed Onsite
- Jobsite Speed Limits
- Site Specific Hazards
- After-Hour Emergency Contact Information

The following signs should be placed inside the jobsite office (trailer):

- OSHA 300 Form
- Emergency Telephone Numbers (at every telephone)
- Panel of Physicians
- Emergency Plan for various emergencies

Remember that posters, signs, training and other communications needs to be done in a manner and/or language that the employee can understand.

John Plott Co., Inc.

CONSTRUCTION JOBSITE SAFETY RULES

1. Access to this site is restricted to employees and those authorized by John Plott Co., Inc.
2. Use and/or possession of intoxicants, alcohol or drugs are strictly prohibited.
3. Hard hats shall be worn by all employees on the construction jobsite at all times.
4. Hard soled shoes are required. No tennis shoes.
5. Long pants and shirts with 4" minimum sleeves are required at all times.
6. Eye protection, ear protection and respiratory protection devices will be worn when required.
7. Full body harness, shock-absorbing lanyards, or other fall protection measures will be utilized when working at unprotected heights.
8. No glass containers allowed onsite.
9. No texting, music, radios, tape decks, or earphones allowed on the construction jobsite.
10. Only authorized personnel are permitted to operate equipment and/or vehicles.
11. All machinery must have operable backup alarms at all times.
12. No riders on machinery or equipment. Seat belt use is required at all times. No riding in back of pick-up bed.
13. No one shall enter a trench or excavation unless it is properly sloped, shielded or shored.
14. Only trained, qualified operators will use powder-actuated tools.
15. All ladders will be secured. Always face ladders while going up or down.
16. Safety barriers should be maintained at all times in all excavations, openings, man holes, etc.
17. Flammable liquids must be kept in approved containers.
18. Be alert for chemical safety hazards on the jobsite.
19. A complete first aid kit is available in the jobsite.
20. Report all accidents, unsafe conditions and/or practices to your supervisor or John Plott Co., Inc. immediately.

EMERGENCY INFORMATION TELEPHONE NUMBERS

DOCTOR: _____

AMBULANCE: _____

HOSPITAL: _____

SHERIFF: _____

FIRE DEPT: _____

JOBSITE PHONE #: _____

JOBSITE ADDRESS: _____

OTHER: _____

FIRST AID KIT

A first aid kit must be established to meet OSHA standards. The 1st Aid Kits should be kept in the job office (trailer).

Any items considered to be medicine shall NOT be included.

The following are examples of medicine:

- Aspirin or Pain Relievers
- Pre-cramp Tablets
- Decongestants or Cold Tablets
- Antacids
- Cough Medicine
- Etc.

Only materials to be used in first aid treatment should be stored in the 1st Aid Kit.

Anyone removing supplies from the first aid kit should document on the "First Aid Log" what was used and by whom. All non-serious injuries not resulting in treatment by a physician should also be entered on the "First Aid Log". A copy of this form is included in this manual.

All jobsites and offices of John Plott Company, Inc shall have at least one person adequately trained in 1st Aid / CPR.

Each sub-contractor is to provide 1st Aid Kits and 1st Aid training for their employees.

JOBSITE EMERGENCY PLAN FOR TORNADOS / HURRICANES

Tornado / Hurricane procedures should follow a series of steps based on information obtained through emergency services and news reports. Tornados / Hurricanes typically have advance notice prior to impact. Thus, precautions should be planned and staged accordingly. The key to Tornado / Hurricane planning is communication. The following general steps should be followed at the onset of a Tornado / Hurricane Warning.

INITIAL PLANNING

- Notify all John Plott Company, Inc personnel, subcontractors, vendors, suppliers, etc. of the possibility of a Tornado / Hurricane.
- Have means and methods of monitoring weather.
- Notify the main office.
- Notify owner, architect, and other consultants.
- Contact police / fire departments to determine if area is to be evacuated.
- Establish a Tornado / Hurricane Coordination Center (site office) and designate a person as Tornado / Hurricane Supervisor (superintendent or jobsite manager).
- Notify all persons of control center numbers, radio channels, and supervisor's name.
- Designate a muster point / location for emergencies.

STORM PREPARATION

- Provide storm gear to personnel if necessary.
- Secure all building premises and tie down all loose objects.
- Secure site offices and tie down all objects.
- Secure all equipment.
- Secure or remove all vital records.
- Protect all glass panes or objects.
- Determine if shut down of electrical is necessary.
- Evacuate all personnel.
- Designate a safe area in the event of a storm.

RETURN TO JOBSITE- RESUME OPERATIONS

- Return only after approval by authorities.
- Perform inventory / evaluation of damages, take pictures, and videotape if extensive.
- Instruct subcontractors to return.
- Notify main office of damage.
- Notify owner of extent of damage.
- Notify / respond to insurance carriers, if necessary.
- Begin cleanup and restoration, if possible.
- Evaluate / track cost to restore to normal operations.

JOBSITE EMERGENCY PLAN FOR FIRE OR INJURED PERSON

- JOBSITE EMERGENCY PERSONNEL TO ASSIGNED STATIONS.
- EVERYONE TO ASSIGNED EMERGENCY RADIO CHANNEL, IF APPLICABLE.
- SAFETY PERSONS/SUPERINTENDENT TO ACCIDENT LOCATION.
- CALL 911 OR LOCAL EMERGENCY NUMBER.
- REPORT TO 911:
 - JOBSITE LOCATION
 - TYPE OF EMERGENCY (INJURED PERSON, FIRE, ETC.)
 - NUMBER OF PEOPLE INJURED
 - TYPE OF INJURY
 - EMERGENCY RESPONSE UNIT REQUIRED
 - ANY SPECIAL CONDITIONS
 - STAY ON PHONE UNTIL RESPONSE UNIT ARRIVES
- CALL FOR INJURED PERSON BASKET (“MAN BASKET”) IF NEEDED.
- ASSIST EMERGENCY RESPONSE PERSONNEL IN EVACUATION OF INJURED PERSON.

JOBSITE FIRE EVACUATION PLAN

- NOTIFY SUPERVISOR OF LOCATION OF FIRE SO THAT 911 CAN BE CALLED.
- EVERYONE EVACUATE BUILDING / JOBSITE IN AN ORDERLY MANNER AND REASSEMBLE IN DESIGNATED LOCATION.
- ALL SUPERVISORS ARE RESPONSIBLE FOR THE LOCATION AND NUMBER OF EMPLOYEES AT ALL TIMES.
- ALL PERSONNEL WILL BE ACCOUNTED FOR TO ENSURE THAT EVERYONE HAS EVACUATED THE AREA.
-

John Plott Co., Inc.

EQUIPMENT OPERATOR SAFETY PROGRAM

Employees of John Plott Co., Inc. are required to adhere to the following guidelines when operating any equipment leased, rented, borrowed or owned by John Plott Co., Inc.. Equipment to include forklifts, ATVs, scrapers, loaders, crawler or wheel tractors, bulldozers, off-highway trucks, graders, agricultural and industrial tractors, and similar equipment.

EARTHMOVING EQUIPMENT

- No employee shall operate equipment without adequate training & proper authorization.
- Operators will refer to Part 2, in the section titled "Motor Vehicles and Construction Equipment".
- Operators shall not operate any heavy equipment that is not in safe working order.
- Operators shall inspect their equipment prior to beginning work to ensure the equipment is in safe condition. Specifically, the inspections will include the seatbelt, brake system, emergency brake system, audible alarm system and any rollover protective structures.
- All accidents must be reported to the office within 1 hour.
- If an accident occurs, the operator must follow the procedures as outlined in the Substance Abuse Policy.
- No "Riders" on equipment.
- No employee shall ride any piece of equipment in any fashion (as in a bucket or on the headache ball) or ride on anything attached to a piece of equipment such as a pipe or other equipment. If an employee is on or in a piece of motorized movable equipment, it shall be equipped with a seat (if intended for sit-down operation) and a seat belt and the seat belt shall be worn snugly.
- NO operator shall be under the influence of drugs, prescription or illegal or under the influence of alcohol.
- The use of a spotter or "stop log" must be used when backfilling an excavation.
- No person is allowed in the cab of a vehicle being loaded by earthmoving equipment.
- No smoking during refueling or in battery charging stations.
- No use of electronic devices while operating earthmoving equipment.

FORKLIFTS

- All forklift operators require specific training prior to operating the equipment.
- Employees will be adequately trained and certified prior to operating a forklift. Training will be performed by a qualified instructor and documented. The training program will include classroom and/or computer instruction, practical training by the instructor, followed by an operational test of each employee by the instructor. Each trained employee shall carry a card documenting the forklift training on their person while operating a forklift.
- Employees will be trained to the operating instructions, controls, capacity, refueling and load stability and be authorized prior to operating a forklift.
- Training by a qualified instructor will include formal instruction, practical training, and operator evaluation of the workplace. Refresher training will be conducted when unsafe operations are observed – after an accident, different type of vehicle, change in conditions and at least every 3 years.
- Operators will be re-evaluated every three (3) years. However, mandatory refresher training shall be provided when unsafe operations by an operator are observed, after an accident, if operation of a different vehicle type is necessary, or changes in operating or workplace conditions occur.
- When driving the forklift without a load the forks should be no more than 2 inches from the floor.
- When forklifts are used to move material be careful with overhead objects such as lights, etc.
- Never drive fast or turn fast. When forklifts are not in use put the forklift in park and engage the parking brake.
- Always be careful and use caution with people around corners. Blow your horn when approaching a corner.
- Qualified Operator will inspect the equipment daily or before each use.
- When unloading or loading a trailer, the operator must verify the trailer wheels are chocked, supports are in place, and dock plates or dock locks are engaged prior to loading / unloading.
- No operator of John Plott Co., Inc. shall move or cause to be moved construction equipment or vehicles upon any access roadway or grade unless the access roadway or grade is constructed and maintained to accommodate safely the movement of the equipment and vehicles involved.
- NO operator shall be under the influence of drugs, prescription or illegal or under the influence of alcohol.
- The use of a spotter must be used when vision is restricted.
- No person is allowed in the cab of a vehicle being loaded by a forklift.
- No smoking during refueling or in battery charging stations.
- No use of electronic devices while operating earthmoving equipment.
- No employee is allowed under suspended loads.

PART 5

EMPLOYEE SAFETY ORIENTATION PACKAGE

The Employee Safety Orientation Package is used to communicate and train employees to the Company Safety Rules, Regulations, Policies, Programs and Plans.

The Employee Safety Orientation Package is to be reviewed and signed by all employees upon implementation of this Safety and Health Manual.

The Employee Safety Orientation Package is to be reviewed and signed by all NEW employees upon hire, but BEFORE the start of work.



**EMPLOYEE
SAFETY
ORIENTATION
PACKAGE**

John Plott Co., Inc.
SAFETY PROGRAM
ACKNOWLEDGEMENT FORM

John Plott Co., Inc. has a moral and business obligation to provide a safe work environment for its employees, subcontractors and the public. It is, therefore, the Company's policy to abide by the Occupational Safety and Health Standards and to initiate and maintain appropriate practices that promote safety in the work environment.

My signature below certifies that I have this day reviewed the John Plott Co., Inc. Safety Manual.

The Safety Manual and Company Safety Rules were either read by me or reviewed with me by an employee of John Plott Co., Inc.

I agree to be guided by the safety instructions issued by my supervisors and will report to him all unsafe conditions or practices observed on the work site.

I understand that any violation of the safety rules or refusal to comply with an OSHA "Safety and Health Regulation" is grounds for dismissal.

Signature

Date

John Plott Co., Inc.
ACCIDENT REPORTING AND MEDICAL SERVICES

All accidents must be reported to the Safety Coordinator or the main office within 1 hour.

All eye, neck, back and knee accidents / injuries require immediate medical attention, no matter how minor.

Accident reports must be 100% complete and turned in to Safety Coordinator within 24 hours of accident.

John Plott Co., Inc. has a current Panel of Physicians for occupational injuries.

There are at least (6) physicians listed for various services.

Except under emergency conditions, I will obtain first aid treatment at the work site for all injuries and will report to the supervisor before leaving to obtain additional medical attention.

A list of physicians and medical facilities for the company are available at the work site and I fully understand that I must choose one of the named physicians or medical facilities for an on the job injury.

I further understand that if I seek medical treatment elsewhere other than the listed physicians or medical facilities for an on the job injury, I shall be responsible for my own medical bills.

Signature

Date

John Plott Co., Inc.
CONSTRUCTION JOBSITE SAFETY RULES

1. Access to this site is restricted to employees and those authorized by John Plott Co., Inc.
2. Use and/or possession of intoxicants, alcohol or drugs are strictly prohibited.
3. Hard hats shall be worn by all employees on the construction jobsite at all times.
4. Hard soled shoes are required. No tennis shoes.
5. Long pants and shirts with 4" minimum sleeves are required at all times.
6. Eye protection, ear protection and respiratory protection devices will be worn when required.
7. Full body harness, shock-absorbing lanyards, or other fall protection measures will be utilized when working at unprotected heights.
8. No glass containers allowed onsite.
9. No texting, music, radios, tape decks, or earphones allowed on the construction jobsite.
10. Only authorized personnel are permitted to operate equipment and/or vehicles.
11. All machinery must have operable backup alarms at all times.
12. No riders on machinery or equipment. Seat belt use is required at all times. No riding in back of pick-up bed.
13. No one shall enter a trench or excavation unless it is properly sloped, shielded or shored.
14. Only trained, qualified operators will use powder-actuated tools.
15. All ladders will be secured. Always face ladders while going up or down.
16. Safety barriers should be maintained at all times in all excavations, openings, man holes, etc.
17. Flammable liquids must be kept in approved containers.
18. Be alert for chemical safety hazards on the jobsite.
19. A complete first aid kit is available in the jobsite.
20. Report all accidents, unsafe conditions and/or practices to your supervisor or John Plott Co., Inc. immediately.

Signature

Date

John Plott Co., Inc.
EMPLOYEE CERTIFICATE OF AGREEMENT
WITH SUBSTANCE ABUSE POLICY

I have received and read the above Policy and agree to abide by the Company's Drug and Alcohol Testing Policy. In consideration for my employment, or employment application, I consent to submit to a drug or alcohol test when required by the Company.

I authorize any laboratory, medical provider, collector or law enforcement officer to release screening and test results to John Plott Co., Inc, Company DER, Alternate DER and its Medical Review Officer ("MRO") and I expressly authorize the Company, DERs and MRO to release any test-related information, including positive results, to the Company's Worker's compensation Adjusters and Trust Fund Manager, Alabama Department of Industrial Relations, or other court, government agency or party investigating or challenging my employment or the terminatino thereof, or in any proceeding I might initiate.

I understand that the Company may revise its drug and alcohol rules, without advance notice, and may begin testing employees at times, or reasons, other than the occasions explained above.

In consideration for hire or continued employment, I release any legal claims I may have against John Plott Co., Inc and its affiliates, officers and employees for requiring a drug and/or alcohol test and for any adverse employment action taken as a result of the test or its results except for claims of megligence against those who collect, test and analyze specimens.

I understand that this agreement in no way limits my or the Company's right to terminate employment at any time for any reason.

Print Name

Signature

Date

John Plott Co., Inc.

HAZARD COMMUNICATION ACKNOWLEDGEMENT FORM

My signature below certifies that I have read and understand this certificate. I know that this company has an active Hazard Communication Safety Program. I understand that my responsibility is to observe and follow safe work guidelines when working with hazardous products. I further understand the following:

Most hazards will fall into five broad categories:

1. Flammables and combustibles
2. Compressed gases
3. Poisons
4. Corrosives
5. Irritants

A hazardous substance can endanger our well being in four ways:

1. Inhaled
2. Ingested
3. Absorbed
4. Injected

Safety Data Sheets (SDS) contain the following information:

1. How to properly handle and store
2. Outline spill clean up procedures
3. Medical and first aid procedures

I know where the SDS, emergency supplies, and emergency phone numbers are located.

I understand how to read, interpret and use the SDS.

I will, when working with hazardous products in containers, follow the guidelines outlined on labels which explain the dangers of the product and the proper way to use this product.

I also understand that the hazardous chemical list, John Plott Co., Inc. Hazard Communication Program, and the SDS are available for my review upon request.

I agree to observe and follow safe work practices while working for John Plott Co., Inc..

Signature

Date

John Plott Co., Inc.

FIRE EXTINGUISHER SAFETY

- Four things needed to maintain a fire:
 1. Fuel
 2. Heat
 3. Oxygen
 4. Chain reactionTake away any one of the first three and the fire will be out.
- Stay upwind of a fire when using a fire extinguisher.
- Stay back 8 to 10 feet from a grease fire because the force of the pressure / powder from the fire extinguisher may cause the grease to splash.
- The main three classes of fire extinguisher ratings:

Class A	Wood, paper, plastic
Class B	Flammable liquids
Class C	Electrical
- **PASS** is the word used to train people properly to use a fire extinguisher.
 - P**ull the pin.
 - A**im the extinguisher at base of fire.
 - S**queeze the handle.
 - S**weep extinguisher from side to side from outside towards center of fire.
- A 10lb. B.C. rated extinguisher should be within 50'-0" of any 5 gallons of fuel.
- A 20 lb. B.C. rated extinguisher should be within 25'-0" maximum 75'-0" of any Liquefied Petroleum Gas tanks or any other fuel tanks greater than 5 gallons capacity.
- All fires no matter how small must be reported immediately to supervisor.
- Mount fire extinguisher: Minimum of 48" from the floor, but no more than 60" off the floor
- The distance one should stand from the base of the fire is written on the fire extinguisher. For example: (2 ½ lb.) Minimum distance is 6' (20 lb.) minimum distance is 12'.
- Everyone should check the fire extinguisher in work area daily to make sure it has adequate pressure and that the pin is still in the proper place.
- Fire extinguishers shall be serviced at least once a year.
- At each testing, a maintenance tag will be placed on the extinguisher to show the inspection date.

Signature

Date

John Plott Co., Inc.

EMERGENCY PLAN

1. An emergency plan is a set of rules or procedures to be followed by all personnel in the event of an emergency.
2. The emergency plan is maintained by the company and is implemented by the Supervisor. The emergency plan determines the proper access / egress of emergency equipment and/or personnel into or out of the area, in case of emergency.
3. Supervisors will be directed to key locations, to assist in an emergency situation.
4. Each employee is expected to follow directions of supervisors and cooperate in any emergency action effort.
5. Personnel should evacuate the area in an orderly fashion, when instructed to do so by the supervisor.
6. If you become aware of an emergency situation or any injury, notify a supervisor immediately.
7. Notify supervisor of the location of emergency so that 911 can be called.
8. All personnel shall evacuate the area in an orderly manner and reassemble in the designated location.
9. All supervisors are responsible for knowing the location and number of employees at all times.
10. All personnel will be accounted for to ensure that everyone has evacuated the area.
11. Personnel are strictly forbidden to discuss project conditions, incidents, or emergencies with the owner, client, media, press or any person not associated with the emergency.

Signature

Date

John Plott Co., Inc.

29 CFR 1910.134 Appendix D 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:

- Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
- 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.
- Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed. 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.
- Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Signature

Date

John Plott Co., Inc.

LADDER SAFETY

All ladders shall be inspected prior to use.

The use of ladders with broken or missing rungs, broken or split side rails, or other faulty or defective construction is prohibited.

Portable ladder feet shall be placed on a substantial base, on a 4 to 1 pitch and the area around the top and bottom of the ladder should be kept clear and clean at all times.

Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds.

Portable ladders shall be tied, blocked or otherwise secured to prevent movement.

All ladders shall extend 36 inches above the landing.

Avoid the use of metal ladders when the possibility of contact with electrical power exists.

Always clean mud or greasy substances from shoes before climbing up ladder.

Always face the ladder and hold on with both hands, whether climbing up or down.

It is dangerous to reach out too far from a ladder in any direction, keep your "center of gravity" as close to the ladder as possible. Move the ladder, as the work requires. Never "walk" or "scoot" ladders while in use.

Never use the top or the top step of a step ladder.

Never use a step ladder as a straight ladder.

Signature

Date

John Plott Co., Inc.

HOUSEKEEPING / CLEAN UP

No one should create hazards for other workers and employees by leaving objects like pipes, carts, boxes, barrels and other trash / debris in the access path, walkways and work areas.

Housekeeping is an important part of our daily work. With the cooperation of everyone we can keep all areas clean, neat, organized and free from tripping hazards.

A clean workplace reduces fire hazards.

Housekeeping should be part of your continuous and DAILY routine.

Follow these steps to help keep your work areas clean and organized:

- Always check / inspect your workplace DAILY.
- Dispose of wastepaper, cardboard, lunch and/or break trash, shipping material, scrap material, etc. into the appropriate container DAILY.
- Clean up anything that is spilled on the floor as soon as possible.
- Keep all aisles, access paths, walkways clear of obstruction...these areas are for people access, not material storage.
- Store all materials neatly and keep them away from traffic access areas and walkway access areas.
- Use nonflammable containers for disposing of scrap and waste substances.
- Always put tools back in their proper places. Tools left on the floor are a hazard!
- Know all locations of first aid and fire fighting equipment.

Take time to think SAFELY!

Signature

Date

John Plott Co., Inc.

ELECTRICAL SAFETY

These regulations apply to electrical installations used on the job, both temporary and permanent installations:

- Extension cords used with portable electrical tools and appliance shall be of three-wire types. Grounds are never to be removed from the extension cords.
- Temporary lights shall be equipped with guards to prevent accidental breakage and/or accidental contact with the bulb.
- Temporary lights shall not be suspended by their electric cords unless cords and lights are designed for this means of suspension.
- Splices of any kind are not allowed. Electrical tape is not an equivalent replacement for the exterior sheathing.
- Electrical and extension cords or cables should not be laid on floors, in walkways, etc., unless it is impractical to do otherwise. They should be suspended or secured in such a way as not to block or hang in walkways, hallways, doorways, or work areas.
- Panel boxes shall have a cover on them at all times, except when being serviced; and when a temporary cover is in place, it should be marked "DANGER - HIGH VOLTAGE" to denote live current.
- Minimum working distances established by OSHA will be followed by unqualified and qualified electricians and workers. The OSHA 1910 Book and OSHA 1926 Book are used and referenced for minimum working distances. De-energized parts not locked or tagged shall be treated as live parts.
- Conductive materials or conductive equipment, such as ducts and pipes shall be avoided. If work is required around conductive material or conductive equipment safe work practices such as those included in this Safety Manual and items listed in Lock-out / Tag-out Program shall be followed.
- Conductive clothing or jewelry shall not be worn when electrical hazards are present, unless the clothing or jewelry is rendered non-conductive by covering, wrapping or other insulation methods.

Use these basic safety procedures when using electrical extension cords:

- Visually inspect the cord for damaged and exposed conductors. If the cord is in damaged condition, don't use it.
- Inspect to make sure the ground prong is in good condition and the cord provides a satisfactory ground for the electrical tools being used.
- Don't drag cords over rough surfaces and don't use them to lift or pull materials. Don't string electrical cords through water or oil and grease. Also, don't hammer nails or staples into cords.
- Disconnect electrical cords at the receptacle. When not in use, the electrical cord should be rolled-up and stored.
- Only round cords that are rated for heavy duty use are allowed on the jobsite. Never use flat power cords on a jobsite.
- Always use GFCI electrical outlets and/or GFCI "pig-tails".

Signature

Date

John Plott Co., Inc.

EXCAVATION & TRENCHING

For any and all trenches more than (5') five feet deep, classify the soil as Class "C", slope sides of trench or excavation 1.5 feet horizontal to 1.0 feet vertical.

If a COMPETENT PERSON classifies the soil as Type "A" or Type "B" other slopes can be used.

Other alternatives are to use shoring and/or trench boxes.

All slopes and/or excavations greater than (20') twenty feet deep, MUST be designed by a registered Professional Engineer.

A COMPETENT PERSON is one who has been trained and is capable of identifying existing and predictable hazards in the surrounding work areas, and/or working conditions that are unsanitary, hazardous, or dangerous and who has the authority to take prompt corrective measures to eliminate the hazard. Also, the competent person must have the authority to stop work if a hazard exists.

A competent person must inspect / check all trenches, adjacent areas, and any protective systems for possible cave-ins, failure of protective systems, hazardous conditions, etc.

Inspections MUST be performed DAILY before work begins and/or when any worker enters the area.

Inspections must be performed after any rainstorm, any hazard-increasing occurrence and/or any other change in conditions.

In trenches deeper than (4') four feet, locate means of an exit, such as ladders, steps or ramps so that they are no more than (25') twenty-five feet of travel from anyone in the trench.

Supervisors are required to call U-Locate ... to locate utilities prior to excavation / trenching.

Signature

Date

JOHN PLOTT COMPANY, INC.
VEHICLE SAFETY POLICY & DRIVER GUIDELINES

The following additional safety measures are required by our Insurance Carrier to be added as supplemental requirements to our Personal Policy and Safety Manual regarding the vehicle safety.

Employees of John Plott Company, Inc. are required to adhere to the following guidelines when operating any vehicle owned, leased, rented or borrowed by John Plott Company, Inc. or when operating a personal vehicle for company business. Failure to follow any of the following policies or guidelines may be grounds for termination of driving privileges or dismissal from employment.

Operating a company vehicle under the influence of alcohol or drugs shall result in immediate termination of employment

Cell phone texting while driving is strictly prohibited

Seat belt usage is mandatory for all occupants including back seat occupants

Only approved drivers are allowed to operate company vehicles. All drivers must submit a copy of their driver's license so that a driver's motor vehicle record may be reviewed for a history of violations and accidents. MVR's will be reviewed at least annually and depending on violations and accident history a driver employee can be subject to a range of disciplinary actions including reprimand, required additional drive training, suspension of driving privileges, or termination of employment.

DRIVER GUIDELINES

All Designated drivers for John Plott Company, Inc. shall comply with the following guidelines:

1. No Driver shall have any major violation within the previous three (3) years
2. A major violation is defined as follows:
 - a. Driving under the influence of alcohol or drugs
 - b. Reckless driving
 - c. Leaving the scene of an accident
 - d. Speeding over 25 MPH of posted limit
3. All drivers shall have less than a maximum of two (2) moving violations in the past three (3) years in combination with one (1) at fault accident
4. All drivers shall have less than a maximum of three (3) moving violations in the past three (3) years with no at fault accident
5. No driver shall have more than a maximum of two (2) at fault accidents in the past three (3) years with no moving violations

A supervisor's report of accident for vehicles must be completed and sent to the main office whenever an accident has occurred involving any company vehicle. This report is to be completed by the supervisor responsible for the vehicle no matter who is as fault.

Company vehicles driven for personal use are to be driven only by the approved driver who is responsible for the vehicle. No other person, including family members, are allowed to operate a company vehicle.

Employees who use an auto allowance and/or mileage reimbursement in lieu of a company provided vehicle shall provide proof of auto liability insurance and limits for review and approval

Any and all accidents or incidents must be reported to the office within one (1) hour

No employee shall operate vehicles without adequate training and proper authorization

Drivers must not take chances. To arrive safely is more important than to arrive on time.

At all times be cautious of other drivers on the road. Display a positive company image while driving any vehicle

Additional time and care should be taken any time when in reverse or backing up a vehicle to check, double check and to make sure no obstacles, pedestrians, equipment or other vehicles are in the way to assure it is safe to back up before proceeding.

Positively NO road rage regardless of who is at fault

Positively no tailgating. Maintain a proper distance between you and all other drivers

I, the undersigned, hereby acknowledge that I have read the foregoing guidelines and hereby agree to comply with same and shall immediately notify any matters that are inconsistent with these guidelines to John Plott Company, Inc.

Signature _____

Date _____

John Plott Co., Inc.

EMPLOYEE SAFETY ORIENTATION

I have been verbally and visually orientated and/or trained to all John Plott Co., Inc. safety rules, regulations and/or policies. I have also been trained to the John Plott Co., Inc. Safety Manual.

These items include, but are not limited to:

- Safety Acknowledgement Form
- Construction Jobsite Safety Rules
- Substance Abuse Policy
- Hazard Communication Program
- Safety Data Sheets
- Regular Safety Training
- Fire Extinguisher Safety
- Fall Protection Safety
- Emergency Plan
- Personal Protection Equipment (PPE)
- Ladder and Stair Safety
- Housekeeping / Clean-Up
- Electrical Safety
- Excavation and Trenching Safety
- Equipment Safety
- Crane and Rigging Safety
- Vehicle Safety
- Cell Phone and Electronic Device Safety
- Accident Reporting
- Safety Violation Warning System

Questions / Comments: _____

Signature

Date

PART 6

COMPANY SAFETY FORMS

John Plott Co., Inc.
COMPANY REPORT OF ACCIDENT

This form is to be used in conjunction with OSHA 301 Form

Jobsite: _____ Jobsite Number: _____

Date of Injury: _____ Name of Injured: _____

Age: _____ Employed By: _____

SS#: _____ Occupation: _____

Drug / Alcohol Test Performed? Yes _____ No _____

Description of Occurrence (Include location, time of day, related details, and resulting injuries.)

Witness:

Name: _____ Employed by: _____

Drug / Alcohol Test: Yes _____ No _____

Comments: _____

Did any unsafe conditions exist? _____

Did employee contribute to accident? _____

Corrective action taken? _____

Signature

Supervisor Signature

John Plott Co., Inc.
SUBCONTRACTOR'S REPORT OF ACCIDENT

This form is to be used in conjunction with OSHA 301 Form

Jobsite: _____ Jobsite Number: _____

Date of Injury: _____ Name of Injured: _____

Age: _____ Employed By: _____

SS#: _____ Occupation: _____

Drug / Alcohol Test Performed? Yes _____ No _____

Description of Occurrence (Include location, time of day, related details, and resulting injuries.)

Witness:

Name: _____ Employed by: _____

Drug / Alcohol Test: Yes _____ No _____

Comments: _____

Did any unsafe conditions exist? _____

Did employee contribute to accident? _____

Corrective action taken? _____

Signature

Supervisor Signature

John Plott Co., Inc.
VEHICLE ACCIDENT REPORT

Date: _____ Name: _____

State and City Accident Occurred: _____

Name of Injured Persons: _____

Make and Model of Company Vehicle: _____

Description of Damage to John Plott Co., Inc. Vehicle: _____

Description of Damage to Other Vehicles and/or Property: _____

Description of Accident: _____

Signature: _____

John Plott Co., Inc. SAFETY WARNING

On this date, _____ and time _____,

at this location _____

employee (name), _____

working for (company) _____

failed to comply with the safety rules and/or policies: _____

1st Violation – A verbal warning with an explanation, counseling or additional training.

2nd Violation – A written warning and management review of conduct.

3rd Violation – A written warning and being subjected to suspension without pay.

4th Violation – A written warning, subject to immediate termination of employment.

Action taken to correct safety warning: _____

Employee Signature

Date

Supervisor Signature

Date

John Plott Co., Inc.
OBSERVED BEHAVIOR / FOR-CAUSE
RECORDING FORM

Name of Employee Observed: _____

Location / Department: _____ Date: _____

Time of Observation: From: _____ AM _____ PM

To: _____ AM _____ PM

OBSERVED PERSONAL BEHAVIOR (check all appropriate items):

- | | | | |
|-------------------------------------|---|-------------------------------------|--|
| 1. <u>SPEECH</u> | 2. <u>AWARENESS</u> | 3. <u>BALANCE</u> | 4. <u>WALKING</u> |
| <input type="checkbox"/> Normal | <input type="checkbox"/> Normal | <input type="checkbox"/> Normal | <input type="checkbox"/> Normal |
| <input type="checkbox"/> Incoherent | <input type="checkbox"/> Confused | <input type="checkbox"/> Swaying | <input type="checkbox"/> Stumbling |
| <input type="checkbox"/> Confused | <input type="checkbox"/> Sleepy | <input type="checkbox"/> Staggering | <input type="checkbox"/> Swaying |
| <input type="checkbox"/> Slurred | <input type="checkbox"/> Paranoid | <input type="checkbox"/> Falling | <input type="checkbox"/> Arms Raised Forward |
| <input type="checkbox"/> Whispering | <input type="checkbox"/> Lack of Coordination | | <input type="checkbox"/> Falling |
| <input type="checkbox"/> Silent | | | <input type="checkbox"/> Reaching |

5. Description of other observed actions or behavior indicative of possible drug use:
(Be specific and objective).

6. Description of action taken: _____

7. Name / Title of Observing Management or Witnesses:

A. Print Name: _____ Sign Name: _____

Title: _____ Date: _____

B. Print Name: _____ Sign Name: _____

Title: _____ Date: _____

THIS FORM MUST BE PREPARED WHEN AN EMPLOYEE IS SUSPECTED OF DRUG USE.

John Plott Co., Inc.

CONFINED SPACE

PRE-ENTRY CHECKLIST

Date: _____ Time: _____

Jobsite Name: _____

Location on Jobsite: _____

Purpose of Entry: _____

Job Supervisor / Entry Supervisor Name: _____

First Atmospheric Check:

Time _____	Oxygen _____ %		
	Explosive _____ % L.F.L.		
	Toxic – H2S _____ PPM		
	Toxic – CO _____ PPM		

	N/A	YES	NO
Hazard Source Isolation: Pumps or lines blinded, disconnected, or blocked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ventilation: Mechanical Ventilation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural Ventilation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Atmospheric Check after Isolation and/or Ventilation:

Time _____	Oxygen _____ %		
	Explosive _____ % L.F.L.		
	Toxic – H2S _____ PPM		
	Toxic – CO _____ PPM		

Communication Procedures: _____

Rescue Procedures: _____

	N/A	YES	NO
Entry, Attendants, and Supervisor persons: Successfully completed required training?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is training current?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Equipment:

Atmospheric gas monitor – pre-tested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety harnesses for entry persons / attendants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifelines and hoisting equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PPE & protective clothing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All electric equipment non-sparking tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lighting equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	YES	NO
Did your survey of the surrounding area show it to be free of hazards such as drifting vapors from tanks, piping or sewers?	<input type="checkbox"/>	<input type="checkbox"/>
Does your knowledge of other discharges indicate this area is likely to remain free of dangerous air contaminants while occupied?	<input type="checkbox"/>	<input type="checkbox"/>
Are you trained in operation of the gas monitor to be used?	<input type="checkbox"/>	<input type="checkbox"/>
Has a gas monitor functional test been performed before monitor is used?	<input type="checkbox"/>	<input type="checkbox"/>
Was the atmosphere of the confined space tested prior to entry?	<input type="checkbox"/>	<input type="checkbox"/>
Did the atmosphere check as acceptable (no alarms given)?	<input type="checkbox"/>	<input type="checkbox"/>
Will the atmosphere be regularly monitored while the space is occupied?	<input type="checkbox"/>	<input type="checkbox"/>
Has the inside of the space been visually inspected and free of hazards?	<input type="checkbox"/>	<input type="checkbox"/>
Has the outside of the space been visually inspected and free of hazards?	<input type="checkbox"/>	<input type="checkbox"/>

If any of the above questions are answered "NO" ... DO NOT enter. Contact your immediate supervisor.

Periodic Atmospheric Test:

Time _____	Oxygen _____ % Explosive _____ % L.F.L. Toxic – H2S _____ PPM Toxic – CO _____ PPM
Time _____	Oxygen _____ % Explosive _____ % L.F.L. Toxic – H2S _____ PPM Toxic – CO _____ PPM
Time _____	Oxygen _____ % Explosive _____ % L.F.L. Toxic – H2S _____ PPM Toxic – CO _____ PPM

I have reviewed the work task authorized by this pre-entry checklist and the information contained in this pre-entry checklist, is accurate.

Written safety instructions and safety procedures have been reviewed with entry / attendant persons.

Entry cannot be approved if any boxes are marked "NO", page 1 or 2. (If NO, proceed to Entry Permit)

By completing this pre-entry checklist, I have reclassified the entry to a NON-PERMIT required entry.

The checklist is to be kept at the jobsite, during duration of entry. Return job site copy to office following job completion.

Additional Information _____

 Entry Supervisor Printed Name

 Entry Supervisor Signature

John Plott Co., Inc. CONFINED SPACE ENTRY PERMIT

In accordance with CFR 1926.1206

ENTRY PERMIT VALID FOR ONLY 8 HOURS.

Date: _____ Duration: _____ to _____

Jobsite Name: _____

Location on Jobsite: _____

Purpose of Entry: _____

Authorized Entrants Name(s): _____

Attendant Name: _____

Entry Supervisor Name: _____

Communication Procedures: _____

Rescue Procedures: _____

Hazards of the Confined Space: _____

Method used to Eliminate or Control Hazards: _____

Equipment:

	N/A	YES	NO
Atmospheric gas monitor – pre-tested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ventilation equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Back-up power and/or back-up fuel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secure surrounding area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety harnesses for entry persons / attendants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifelines and hoisting equipment for rescue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PPE & protective clothing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire extinguishers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All electric equipment non-sparking tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Burning and/or welding “Hot” Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Acceptable Entry Conditions:	Oxygen	Above 19.5% Below 23.5%
	Lower Flammable Limit	Under 10%
	Carbon Monoxide	Under 35 ppm
	Hydrogen Sulfide	Under 10 ppm

First Atmospheric Test:

Time _____	Oxygen	_____ %
	Explosive	_____ % L.F.L.
	Toxic – H2S	_____ PPM
	Toxic – CO	_____ PPM

Periodic Atmospheric Test:

Time _____	Oxygen	_____ %
	Explosive	_____ % L.F.L.
	Toxic – H2S	_____ PPM
	Toxic – CO	_____ PPM

Time _____	Oxygen	_____ %
	Explosive	_____ % L.F.L.
	Toxic – H2S	_____ PPM
	Toxic – CO	_____ PPM

Time _____	Oxygen	_____ %
	Explosive	_____ % L.F.L.
	Toxic – H2S	_____ PPM
	Toxic – CO	_____ PPM

Instrument(s) used	Model / Type	Serial # or Unit #
_____	_____	_____
_____	_____	_____

Misc. Information / Comments: _____

I have reviewed the work task authorized by this Confined Space - Entry Permit and the information contained in this Confined Space - Entry Permit, is accurate.

Written safety instructions and safety procedures have been reviewed with entry / attendant persons.

By completing this Entry Permit, I authorize the work to be conducted in this Confined Space.

The Entry Permit is to be kept at the jobsite, during duration of entry. Return job site copy to office following job completion.

Additional Information _____

Entry Supervisor Printed Name

Entry Supervisor Signature

John Plott Co., Inc. SILICA EXPOSURE CONTROL PLAN

Competent Person: _____

Date: _____

Title: _____

Jobsite location: _____

Employees Exposed: _____

Exposure time: Less than 4 hours Greater than 4 hours

Task location: Indoors Outdoors

Description of Task(s): _____

TOOLS:

_____ _____

_____ _____

WORK PRACTICES:

- Use the Drill, Vacuum and Water Delivery System controls according to manufacturer's instructions for reducing dust emissions.
- Check shrouds and hoses to make sure they are not damaged before starting work.
- Make sure the hoses do not become kinked or bent while working.
- Use switch on vacuum to activate filter cleaning at the frequency recommended by the manufacturer.
- Replace vacuum bags as needed to prevent overflowing and replace water as needed.
- If visible dust increases, check controls and adjust as needed.

RESPIRATORY PROTECTION

Use respirator with APF of 10 the entire time the task is being performed indoors for more than a four (4) hour shift.

ASSIGNED PROTECTION FACTOR

APF 10

N95 or N100 Filtering Facepiece, or ½ Mask Elastomeric Respirator with particulate filter.

See the written respiratory protection program for information on selection, training and fit testing requirements, in addition to proper use instructions for respirators (for example, being clean shaven when using a respirator that seals against the face).

HOUSEKEEPING

- Dust containing silica on work surfaces and equipment must be cleaned up using wet methods or a HEPA-filtered vacuum.
- Do not use compressed air or dry sweeping for removing dust and debris containing silica from work surfaces.
- Dispose of used vacuum bags in a container and keep the container sealed.

PROCEDURES USED TO RESTRICT ACCESS TO WORK AREAS

- Coordinate the work with affected trades so that only employees who are engaged in the task are in the area.
- Barricade the area restricting access to authorized employees only.
- Provide adequate signage to warn unauthorized individuals of the hazard

USING ENGINEERING CONTROL METHODS FROM TABLE 1

Refer to Table 1 on following page for specific engineering control methods designed to reduce or Eliminate Exposure and keep respirable crystalline silica dust levels below Action Level and Permissible Exposure Limit (PEL).

Equipment / Task	Engineering and work practice control methods	Required Respiratory Protection and minimum APF	
		≤ 4hrs	≥ 4hrs
Handheld Drill (impact and rotary hammer drills)	<ul style="list-style-type: none"> Use drill 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 Hepa filtered vacuum when cleaning holes. 	NONE	NONE
Handheld Power Chipping Tools	<ul style="list-style-type: none"> 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 enclosed areas or Use a tool equipment with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector 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 enclosed areas 	NONE APF10	APF10 APF10
Rig Mounted Core Saws or Drills	<ul style="list-style-type: none"> Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	NONE	NONE
Stationary Masonry Saw	<ul style="list-style-type: none"> Use saw equipped with an 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
Handheld Power Saws (any blade diameter)	<ul style="list-style-type: none"> Use saw equipped with an 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 enclosed areas 	NONE	NONE
Handheld power saws for cutting fiber cement board	<ul style="list-style-type: none"> 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, greater, and have a filter with 99% or greater efficiency 	NONE	NONE
Walk behind Saws	<ul style="list-style-type: none"> Use saw equipped with an 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 enclosed areas 	NONE APF10	NONE APF10
Handheld Grinders for Mortar Removal (i.e. tuckpointing)	<ul style="list-style-type: none"> 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 airflow per inch of wheel diameter and have filter with 99% efficiency or greater and a cyclonic pre-separator or filter cleaning mechanism. 	NONE	NONE
Handheld Grinders for uses other than Mortar Removal	<ul style="list-style-type: none"> 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 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 enclosed areas 	NONE NONE	NONE APF10

John Plott Co., Inc.
WEEKLY SAFETY TRAINING

DATE: _____ NUMBER PERSONS ATTENDING: _____

JOB NAME: _____ JOB # _____

NAME OF PERSON
CONDUCTING TRAINING _____

REGULAR TOPICS INCLUDE: PPE Requirements, any job specific topics, incidents, etc.

MAIN TOPICS DISCUSSED: _____

ADDITIONAL TOPICS DISCUSSED: _____

SUGGESTIONS OFFERED: _____

Person Conducting Training Signature

Date

Attendee Printed Name

Attendee Signature

Attendee Printed Name

Attendee Signature

Attendee Printed Name

Attendee Signature

Attendee Printed Name

Attendee Signature

Attendee Printed Name

Attendee Signature

Attendee Printed Name

Attendee Signature

Attendee Printed Name

Attendee Signature

Attendee Printed Name

Attendee Signature

John Plott Co., Inc.

SAFETY INSPECTION REPORT

Are employees wearing hard hats?	YES	NO	N/A
Do employees have safety glasses available?	YES	NO	N/A
Are first aid kits available?	YES	NO	N/A
Are all employees aware of the emergency action plan?	YES	NO	N/A
Are all fall protection devices in order?	YES	NO	N/A
Is the walking / working area free from trip and fall hazards?	YES	NO	N/A
Are all SDS's available?	YES	NO	N/A
Is the work area's free of trash and debris?	YES	NO	N/A
Are fire extinguishers available in work areas?	YES	NO	N/A
Are all power tools maintained and in proper working order?	YES	NO	N/A
Is the OSHA poster available?	YES	NO	N/A
Are ladders set up and used properly?	YES	NO	N/A
Do all workers know where the Haz Com / SDS book is?	YES	NO	N/A
Are subcontractors following safety requirements?	YES	NO	N/A
Are all hand tools free from splits and cracks?	YES	NO	N/A
Are all employees trained in the use of special equipment?	YES	NO	N/A
Is all temporary power protected by an adequate GFCI?	YES	NO	N/A
Are extension cords in good condition?	YES	NO	N/A
Is the Lock Out / Tag Out program being utilized?	YES	NO	N/A

Additional Comments _____

Signature

Date

John Plott Co., Inc.

DAILY EQUIPMENT CHECKLIST

Date: _____

M T W Th F

Operator: _____

Make: _____

Model#: _____

Equipment Type: _____

VISUAL INSPECTION	GOOD	OK	BAD	Need Repair / Missing	N/A
Back up Alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Blade, Boom, Bucket, Basket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Brake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Brake Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Brake Fluid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Cab R.O.P.S.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Control Levers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Control Labels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Cooling System Fluid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Coupling Devices & Connectors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Engine Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Exhaust System	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Fall Protection Tie – off Point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Fire Extinguisher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Frame	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Gauges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Guardrails, back gate or chain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Ground engaging attachments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Hand Grabs & Steps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Horn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Hose Connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Hydraulic Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Lights / Turn Signals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Lubrication points	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Safety Decals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Seatbelts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Tires / Tracks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Transmission Fluid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Windshield	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Windshield Wipers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

OPERATOR SAFETY
PPE:
Certification:
Authorized Comments:

Signature

Date

John Plott Co., Inc.

DAILY FORKLIFT CHECKLIST

Date: _____

M T W Th F

Operator: _____

Make: _____

Model#: _____

Equipment Type: _____

VISUAL INSPECTION	GOOD	OK	BAD	Need Repair / Missing	N/A
Back up Alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Batteries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Boom Angle indicator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Boom Sections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Brake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Brake Fluid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Brake Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Cab R.O.P.S.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Control Labels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Control Levers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Cooling System Fluid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Coupling Devices & Connectors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Data Plate / Load Lifting Chart	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Engine Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Fire Extinguisher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Frame	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Gauges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Hand Grabs & Steps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Horn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Hose Connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Hydraulic Oil / Cylinders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Lifting Chains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Lights / Turn Signals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
LPG Tank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Safety Decals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Seatbelts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Steering, Forward / Reverse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Tires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Transmission Fluid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Windshield	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Windshield Wipers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

OPERATOR SAFETY
PPE:
Certification:
Authorized Comments:

Signature

Date

John Plott Co., Inc.

COMPETENT PERSON

EXCAVATION DAILY INSPECTION

Date: _____ Time: _____

Jobsite Name: _____

Location on Jobsite: _____

Type of weather: _____ Temperature: AM _____ PM _____

Is the excavation less than 5 feet in depth?	YES	NO
Is 1.5 to 1 sloping of trench walls being used?	YES	NO
Have all open excavations and trenches been inspected?	YES	NO
Is an Engineered report being used?	YES	NO
Has the soil been classified (Types A____, B____, or C____)?	YES	NO
Are the slopes at proper angles (1.5 to 1, etc.)?	YES	NO
Is a trench box in use (the rated capacity is _____ psf)?	YES	NO
Is a shoring system in use (aluminum _____, or wood _____)	YES	NO
Have utility companies been notified by the "One-Call"?	YES	NO
Are ladders____, stairways____, or ramps____ in use?	YES	NO

If any of the above answers are "NO", a possible hazardous condition exists and the minimum OSHA Standards must be used and complied with in full (unless a slope of 1.5 to 1 is excavated for the trench walls) in all cases.

Are spoil piles located too close to the trench?	YES	NO
Are surcharge loads too close to the trench?	YES	NO
Are there tension cracks along the trench?	YES	NO
Are there shrinkage cracks in the trench walls?	YES	NO
Has water accumulated in the trench?	YES	NO
Has any soil sloughed off or caved in since yesterday?	YES	NO
Is backfilling of the trench being delayed?	YES	NO
Is there a layered soil condition present?	YES	NO
Are other construction activities near the trench?	YES	NO
Is there any vehicular traffic near the trench?	YES	NO
Are there any trees, boulders, signs, poles, etc. in area?	YES	NO
Are subsurface conditions different than was anticipated?	YES	NO
Are there other utility lines near the trench?	YES	NO
Any fluid leakage detected in the aluminum shoring?	YES	NO
Do wood shores need to be tightened?	YES	NO
Can the trench be classified as a "confined space"?	YES	NO

If any of the above answers is "YES", there is a changed condition which affects the soil classification and thereby affects employee safety. All work must cease until corrective action is taken and soil is reclassified.

Corrective Action Taken: _____

Comments: _____

Print Name _____

Signature _____

John Plott Co., Inc.
SAFETY PROGRAM
ACKNOWLEDGEMENT FORM

For Subcontractors, Vendors, Architects, Engineers, Owners, Visitors and / or Third Parties

My signature below certifies that I understand OSHA Safety & Health Regulations and that I understand John Plott Co., Inc. has an active Safety Program and that I agree to follow these rules, regulations and programs while on John Plott Co., Inc. work sites. I will report all unsafe conditions or practices observed on the work site.

I understand that any violation of the John Plott Co., Inc. Safety Program or refusal to comply with the OSHA Safety & Health Regulations are grounds for removal from John Plott Co., Inc. work site.

I understand that all Subcontractor Employees, Vendors, Architects, Engineers, Owners, Visitors and / or Third Parties hired directly by the preceding parties or those otherwise not named are required to follow OSHA Safety & Health Regulations and John Plott Co., Inc. Safety Program as a minimum, at all times on the work site.

- Report all injuries, accidents and/or incidents to John Plott Co., Inc. immediately.
- All Subcontractor employees must wear appropriate safe, construction clothing while on work site. (Hard soled shoes, long pants, full shirts with a minimum 4" sleeve, etc.)
- The proper Personal Protective Equipment, must be provided and used when required. Hard hats are required at all times on John Plott Co., Inc. work sites.
- The work site, work area, storage areas, etc. will be kept clean and organized at all times. Subcontractors are responsible for continuous clean-up, daily clean-up, end of the activity clean-up, final clean-up, lunch / break area clean-up, etc.
- All tools (power and hand) and all equipment / vehicles must be in a good, clean, well maintained, safe condition to be on John Plott Co., Inc. work sites.
- All electrical cords must be maintained in a good, safe condition.
- All employees on John Plott Co., Inc. work sites must attend safety training at least once per week. Notes from safety training and attendance must be documented.
- At John Plott Co. discretion, all parties entering a JPC job site, or surrounding area subject to associated safety hazards, may be required to participate in a safety orientation and sign a waiver certifying understanding of all John Plott Co. Safety Program rules and their ability to recognize safety hazards.
- Subcontractors must provide First Aid kits, medical services and emergency procedures for all its employees.
- Fresh, clean water and drinking cups must be provided for employees.
- Subcontractors must assure employee knowledge of the location of SDS sheets.
- Each Subcontractor and / or other parties listed above must have a "Competent Person" onsite during construction activities. "Proof" of safety training and competency must be available at the work site.

Print Name of Subcontractor _____

Print Person's Name _____

Person's Signature _____ Date _____

John Plott Co., Inc.

Site Specific Safety Plan

Date Submitted: _____

Name of Project: _____

Project Address: _____

General

Our company safety manual has been written specifically for and tailored to John Plott Co., Inc.. The John Plott Co., Inc. safety manual addresses most of the hazards anticipated on this project.

A copy of our current Safety Manual and Safety Data Sheets will be provided upon request.

Site Specific Safety

1. John Plott Co., Inc.'s "Site Specific Safety Plan" and general safety rules and regulations are implemented by our Project Managers

Project Manager for this project

2. Identification of safety hazards, plan to address safety hazards and enforcement of safety rules and regulations will be conducted by our designated Supervisors / Competent Persons.

Name of Supervisor / Competent Person for this project

3. Weekly Safety Training Sessions are conducted. These weekly safety training sessions will address specific safety rules and/or site specific safety issues on the project. Weekly safety training sessions are documented and available upon request.

4. John Plott Co., Inc. personnel and John Plott Co., Inc. subcontractors are required to attend and participate in weekly safety training sessions.
5. The use of the necessary and required PPE and the inspection of the necessary and required PPE will be conducted by the supervisors and workers on the project.
6. First Aid kits will be available to John Plott Co., Inc. personnel.
7. On site accidents and injuries are reported within one hour to the John Plott Co., Inc..
8. Required posters and safety signage will be available at general contractor office and at John Plott Co., Inc. branch office and John Plott Co., Inc. main office.
9. General SDS, company safety manual and site specific plan will be available at GC field office and company job truck.
10. John Plott Co., Inc. has an active substance abuse policy in effect.
11. Safety violations are issued based on company enforcement disciplinary policy.
12. John Plott Co., Inc. subcontractors are required to follow John Plott Co., Inc. Safety Manual and John Plott Co., Inc. site specific safety plans, as a minimum.
13. Please see attached list of "hazard assessment" and "hazard abatement".

Please contact me if you have any questions or additional needs.

Thank You,

Signature of John Plott Co., Inc. Manager

Printed Name of John Plott Co., Inc. Manager

Date

John Plott Co., Inc.

Project Name:

Project Address:

Plan Prepared By:

Note: This plan is a reasonable effort to identify possible hazards and risks associated with this site. It is not comprehensive in nature and does not encompass all hazards, preventions or remedies for listed hazards. In the event the information contained in this Hazard Assessment and Abatement plan conflicts with OSHA 1926 code, then the OSHA 1926 code will prevail.

Hazard / Risk	Assessment	Abatement
Head Injury	Impact, falling / flying objects and electrical can cause injuries to the head	Personnel will wear hard hats when required by hazard and/or when client requires the use of hard hats
Eye / Face Injury	Flying or falling foreign objects can cause eye and/or face injuries	Personnel shall wear eye and/or face protection during drilling, cutting, chipping, sanding, grinding and scraping type of activities
Hearing Injury	Personnel can be subjected to loud noises from tools, equipment and activities	Personnel shall wear hearing protection anytime sound levels are above 90 decibels or long term exposure to loud noises
Hand Injury	Hands can be injured, cut or punctured when handling tools and/or materials	Personnel shall wear gloves or other hand protection when handling abrasive, heavy or sharp materials
Back Injury	Improper lifting techniques or attempting to lift too much can cause back injury	Personnel should lift items while bending at the knees. Also, personnel should get assistance when lifting large or heavy items
Foot Injury	Foot injury can result from exposed nails, falling objects and uneven surfaces	Personnel should wear work boots with a good sole and ankle support. Steel toe work boots should be worn when required
General Body Injury	Bodily injury can result from operations, activities, environment and other personnel	Personnel shall wear appropriate PPE. Personnel shall wear good clothing, work boots, long pants and shirt with a 4" minimum sleeve
Respiratory Injury	Dust, gases and vapors can result in injuries to the respiratory system	Personnel are required to wear respiratory protection when required. Ventilation, wet cutting, etc. shall be used, if possible

John Plott Co., Inc.

Project Name:

Project Address:

Plan Prepared By:

Note: This plan is a reasonable effort to identify possible hazards and risks associated with this site. It is not comprehensive in nature and does not encompass all hazards, preventions or remedies for listed hazards. In the event the information contained in this Hazard Assessment and Abatement plan conflicts with OSHA 1926 code, then the OSHA 1926 code will prevail.

Hazard / Risk	Assessment	Abatement
Chemical Hazards	Chemical hazards are present on jobsites and can be created with incorrect handling or usage	Safety Data Sheets will be available at client facilities, in company truck or a company offices
Slip / Trip / Falls	Slip, Trips and Falls usually result from lack of traction, poor housekeeping and improper storage	Works areas will be kept clean and clear of obstructions. Storage areas should be stacked neatly and with adequate access
Tool Hazards	Tools can create hazards with missing or damaged guards, cords or switches	Tools will be inspected to assure in safe operating condition, guards are in place, cords are in good shape, including ground prongs
Ladder Hazards	Improper use of extension ladders and step ladders can result in injuries	Personnel are required to be trained on ladder use and use proper ladders and proper ladder use techniques.
Fall from Elevations	Personnel can be injured from falls from elevations are a major source of accidents and injuries	Personnel shall never work from unprotected heights. Ladders, scissors lifts or aerial lifts shall be utilized.
Electrical Hazards	Personnel can be injured by electrical hazards of tools, equipment and building electrical systems	Personnel are reminded to wear appropriate PPE, not to work in proximity of energized electrical circuits or utilize Lock Out / Tag Out
Struck By Hazards	Personnel can be injured by being struck by falling, flying or moving objects, tools or equipment	Personnel are reminded to wear PPE, not work under suspended loads and to be aware of workplace surroundings
Caught In Between Hazards	Personnel can be injured by crushing or pinching between objects, walls or other equipment	Personnel are reminded to wear appropriate PPE, not to work in "pinch points" and to be aware of workplace surroundings

PART 7

SAFETY DATA SHEETS (SDS)

SAFETY DATA SHEET (SDS)

A Safety Data Sheet (SDS) is a fact sheet for a chemical which poses a physical or health hazard at your work site. SDS must be in English and contain the following information:

- Identity of the chemical (as used on the label)
- Physical hazards
- Health hazards
- Primary routes of entry
- Whether it is a carcinogen
- Precautions for safe handling and use
- Emergency and first aid procedures
- Date of preparation of last revision
- Name, address, and telephone number of manufacturer, importer, or other responsible party

If relevant information in one of the categories was unavailable at the time of preparation, the SDS must indicate that no information was found. Blank spaces are not permitted. If you find a blank space on a SDS, contact your supervisor.

Your company must have a SDS for each hazardous chemical it uses. Copies must be made readily available at your work sites. When you travel between work sites during the day, the SDS may be kept at a central location.

If there are workers from other companies at your work site, they must be made aware of the chemicals you use and the location of your SDS. They must do the same for you. All SDS can be at a central location and managed by the general contractor.

Labels and Labeling Requirements

Containers of hazardous chemicals must be labeled in English. Information may also be presented in other languages for non-English speaking employees, but English is required. It is required that labels contain the following information:

- Identity of the hazardous chemical
- Appropriate hazard warnings
- Name and address of the chemical manufacturer, importer, or other responsible party
- Pictograms

On individual stationary containers you may use signs, placards, batch tickets, or printed operating procedures in place of labels.

Where the chemical is intended only for the use of the employee marking the transfer during his or her work shift, the company is not required to label portable transfer vessels. If, however, that vessel or container is transferred for use on another work shift, it has to carry a label.

How to Read an SDS

An SDS must precede or accompany the initial shipment but does not have to be physically attached to it. If you receive subsequent shipments of the same item, a new SDS is not required to be sent to you unless the chemical make-up of the product changes.

To ensure proper record keeping and maintenance of SDS, you should:

- Make sure any employee who purchases supplies for your company is on the lookout for SDS.
- Include a request for a SDS and a label that meets the requirements of the Hazard Communications Standard on all purchase orders.
- Ask for a SDS for any material bearing a label indicating it is a hazard unless a SDS is already on file.
- To deal with the multi-employer situation, you may request information from other contractors on the site about hazardous substances and chemicals known to be at the site.

While SDS will appear in many different formats, they will contain essentially the same information. The information on a SDS is extremely technical in nature and should be used as a reference or as a backup to information on a label. A SDS tracking OSHA Form 174 would offer the following information:

SECTION 1 – IDENTIFICATION

1. Chemical name, as it appears on the label.
2. Manufacturer's name and address.
3. Emergency telephone number in the event of an emergency involving the substance.
4. Date prepared and the signature of the preparer.

SECTION II – HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

1. Hazardous Components: Contains the specific chemical identity, its formula, and any common names it is known by.
2. OSHA Permissible Exposure Limits (PEL): PEL is the permissible maximum amount of the chemical a person may be safely exposed to without harm.
3. American Conference of Governmental Industrial Hygienists Threshold Limit Value (TLV): TLV is the concentration of a chemical in the air that can be breathed for five consecutive eight-hour workdays by most persons without harmful effects. It is generally expressed in parts per million.
4. Other limits recommended: Any other recommended limitation on the use of the chemical by any agency, scientific group, or organization should be included.

SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS

1. Boiling Point: The temperature at which a liquid boils.
2. Vapor Pressure (mm Hg): Vapor pressure measures a liquid's tendency to evaporate. The higher the pressure, the faster it will evaporate.
3. Vapor Density: Indicates the weight of an equal volume of air. If a vapor is heavier than air (vapor density greater than 1), it will sink to the ground. If it is lighter than air (vapor density less than 1), it will rise.
4. Solubility in Water: Indicates whether the chemical can mix with water in any ratio without separating.
5. Appearance and Odor: A brief description of the chemical's color and smell.
6. Specific Gravity: Ratio of the weight of the material to the weight of an equal volume of water. The specific gravity determines whether the material floats or sinks in water. Specific gravity values less than or equal to 1 indicate that water should not be used to extinguish a fire involving the substance unless the water comes from automatic sprinklers.
7. Melting Point: Indicates the temperature at which a solid changes to a liquid.
8. Evaporation Point (Butyl Acetate 1): Indicates the temperature at which a substance evaporates.

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

1. Flash Point: Indicates the lowest temperature at which a liquid gives off enough vapor to ignite in air when exposed to a flame.
2. Flammable Limits: Indicates the range of vapor concentrations which will explode when an ignition source is present.
3. Extinguishing Media: Materials suitable for putting out a fire involving the identified chemical. These fire fighting agents are: water fog, foam, alcohol foam, carbon dioxide, and dry chemical. The four classes of fire are:
 - Class A – paper, wood, straw, cloth
 - Class B – flammable and combustible liquids
 - Class C – fire involving energized electrical equipment
 - Class D – combustible metals
4. Special Fire Fighting Procedures: Indicates the chemical's special characteristics when it comes in contact with fire.
5. Unusual Fire and Explosion Hazards: Indicates any special types of hazards requiring attention. The description will indicate whether the chemical is difficult to extinguish, will re-ignite spontaneously, and how it reacts with water and other extinguishing agents.

SECTION V – REACTIVITY DATA

1. **Stability:** Indicates conditions that contribute to the stability or instability of a chemical when it is exposed to heat, pressure, or excessive shock during storage, use, misuse, or transport. Look to this section to identify specific conditions to be avoided.
2. **Incompatibility (materials to avoid):** Indicates various materials or conditions you must keep the chemical away from to avoid adverse reactions.
3. **Hazardous Decomposition or By-products:** Indicates gases or vapors which are released when the chemical is burned or decomposes.
4. **Hazardous Polymerization:** Polymerization is a chemical reaction when molecules of the chemical combine with molecules of another chemical to form a larger, different material. This reaction is accompanied by the release of large amounts of energy which can produce fire or other hazards. Polymerization can occur when the chemical comes in contact with certain plastics, rubber, or coatings.

SECTION VI – HEALTH HAZARD DATA

1. **Route(s) of Entry:** A chemical may enter the body either through inhalation, by contact with the skin or eyes, or by being swallowed.
2. **Health Hazards:** Indicates any long-term (chronic) or short-term (acute) effects on the human body.
3. **Carcinogenetic:** Indicates whether the chemical causes cancer.
4. **Signs and Symptoms of Exposure:** Indicates and describes the effects of exposure to the chemical and the most common resulting sensations.
5. **Medical Conditions Severely Aggravated by Exposure:** Indicates how the chemical will affect any pre-existing medical conditions.
6. **Emergency and First Aid Procedures:** Indicates first aid procedures to use in order to reduce the hazardous effects of the chemical. The techniques covered will deal only with inhalation of the chemical, and skin or eye contact with it.

SECTION VII – PRECAUTIONS FOR SAFE HANDLING

1. **Steps to be taken in case Material is Released or Spilled:** Indicates precautions such as avoid breathing gases and vapors; avoid contact with liquids. This section also gives recommended techniques to use in controlling land or water spills.
2. **Waste Disposal Methods:** Indicates proper disposal of the chemical and contaminated materials.
3. **Precautions to Take in Handling and Storage:** Indicates safe handling and storage procedures to be taken to avoid hazardous reactions.
4. **Other Precautions:** Indicates special precautions to use in handling or disposing of the chemical.

SECTION VIII – CONTROL MEASURES

1. The measures indicates in this section should be taken whenever the chemical is handled or disposed of during normal use. They are not measures to be used solely during emergencies or accidental spills.
2. **Respiratory Protection:** If needed, specifies type of respirators required by OSHA when the chemical is used, even as a precautionary measure in non-emergency situations.
3. **Ventilation:** Indicates ventilating systems needed to prevent over-exposure to the chemical. "Local exhaust" ventilation is a system with high speed and low volume. "Mechanical (general) ventilation" is the regular ventilation system used to heat / cool an enclosed area in a permanent facility.
4. **Protective Gloves:** Indicates whether or not gloves must be worn when the chemical is handled. If gloves are required for skin protection, the type of material they should be made of will be indicated.
5. **Eye Protection:** Indicates appropriate eye protection, such as face shields, safety goggles or glasses.
6. **Other Protective Clothing:** Indicates protective equipment and the materials they should be made of to effectively prevent skin contact.

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

SECTION X – REACTIVITY AND STABILITY

SECTION XI – TOXICOLOGICAL INFORMATION

SECTION XII – ECOLOGICAL INFORMATION

SECTION XIII – DISPOSAL CONSIDERATIONS

SECTION XIV – TRANSPORT INFORMATION

SECTION XV – REGULATORY INFORMATION

SECTION XVI – OTHER INFORMATION

Common Chemical List

1. Ready Mix Concrete
2. Grease
3. Diesel Fuel (on and Off Road)
4. Gasoline
5. Hydraulic Oil
6. Pipe Lube

Note:

A complete chemical inventory and SDS inventory is available from your supervisor, at the main office or on our website at www.jplott.com.

READY MIX CONCRETE

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910 1200. Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (as Used on Label and List)

CONCRETE

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's name: BAMA CONCRETE PRODUCTS

Emergency Telephone Number: 205-799-2810

Address (Number, Street, City, State and ZIP Code)

Telephone Number for Information: 205-345-6622

1608 17th STREET

Date Prepared: 3/28/2013

TUSCALOOSA, AL. 35401

Signature of Preparer (optional)

Section II—Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity, Common Name(s))

	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
FORMALDEHYDE	3ppm-5ppm	Ceiling		L.05
TRIETHOANOLAMINE	None	Established		L.10
DIETHANOLAMINE	None	Established		LO.10
MONOETHANOLAMINE	3ppm			LO.10
BENZENSULFONIC ACID DODECYL-SODIUM SALT	None	Established		LO.10
DIMETHOXANE	None	Established		LO.10
CALCIUM CHLORIDE				

FLY ASH

See Attached

CEMENT

See Attached

Section III—Physical/Chemical Characteristics

Boiling Point	7212 Deg F	Specific Gravity (H ₂ O = 1)	72.0
Vapor Pressure (mm Hg)	Unknown	Melting Point	N/A
Vapor Density (AIR = 1)	Unknown	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	N/A		

Appearance and Odor GRAY TO WHITE – NO APPRECIABLE ODOR

Section IV—Fire and Explosion Hazard Data

Flash Point (Method Used)	N/A	Flammable Limits	N/A	LEL	N/A	UEL	N/A
Extinguishing Media	N/A						
Special Fire Fighting Procedures	N/A						

Unusual Fire and Explosion Hazards N/A

(Reproduce locally)

OSHA 174 Sept.

1985

Section V—Reactivity Data			
Stability	Unstable		Conditions to Avoid
	Stable X		STRONG ACID SOLUTIONS
Incompatibility (<i>Materials to Avoid</i>)	STRONG ACID SOLUTIONS		
Hazardous Decomposition or Byproducts	CO2 RELEASED ON CONTACT WITH ACID		
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	
Section VI—Health Hazard Data			
Route(s) of Entry	Inhalation? NO	Skin? YES	Ingestion? YES
Health Hazards (<i>Acute and Chronic</i>)	CONTACT WITH SKIN AND EYES MAY BE IRRITATING		
Carcinogenicity N/A	NTP?	IARC Monographs?	OSHA Regulated?
Signs and Symptoms of Exposure	DERMATITUS OR OTHER SKIN RASHES		
Medical Conditions			
Generally Aggravated by Exposure	DERMATITUS OR OTHER SKIN RASHES		
Emergency and First Aid Procedures	Immediately Flush eyes or skin free of material as soon as possible		
Section VII—Precautions for Safe Handling and Use			
Steps to Be Taken in Case Material Is Released or Spilled	REMOVE SPILLED MATERIAL AS SOON AS POSSIBLE BY SHOVEL OR PROPER EQUIP		
Waste Disposal Method	LANDFILL – NON HAZARDOUS		
Precautions to Be Taken in Handling and Storing	a)use barrier creams, gloves, boots and clothing to protect the skin from prolonged contact with wet cement. Esp in plastic concrete. b) Immediately after working with cement workers should shower with soap and water. c)Precautions must be observed because cement burns occur with little warning, little heat is sensed.		
Other Precautions			
Section VII—Control Measures			
Respiratory Protection (<i>Specify Type</i>)	N/A		
Ventilation	Local Exhaust	N/A	Special
	Mechanical (<i>General</i>)		Other
Protective Gloves	YES	Eye Protection	GOGGLES OR SAFETY GLASSES
Other Protective Clothing or Equipment	RUBBER BOOTS AND CLOTHING TO PROTECT SKIN		
Work/Hygienic Practices	RINSE CONTACTED SKIN AREAS SOON AS POSSIBLE WITH WATER.		

GREASE

Material Safety Data Sheet**1. MATERIAL AND COMPANY IDENTIFICATION**

Material Name : Shell Gadus S2 V220 2
Uses : Automotive and industrial grease.

Manufacturer/Supplier : SOPUS Products
PO BOX 4427
Houston, TX 77210-4427
USA

MSDS Request : 877-276-7285

Emergency Telephone Number

Spill Information : 877-242-7400

Health Information : 877-504-9351

2. COMPOSITION/INFORMATION ON INGREDIENTS

A lubricating grease consisting of highly-refined mineral oil and additives.
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

3. HAZARDS IDENTIFICATION

Emergency Overview	
Appearance and Odour	: Brown. Semi-solid at ambient temperature. Slight hydrocarbon.
Health Hazards	: High-pressure injection under the skin may cause serious damage including local necrosis.
Safety Hazards	: Not classified as flammable but will burn.
Environmental Hazards	: Not classified as dangerous for the environment.

Health Hazards : Not expected to be a health hazard when used under normal conditions.

**Health Hazards
Inhalation** : Under normal conditions of use, this is not expected to be a primary route of exposure.

Skin Contact : Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Eye Contact : May cause slight irritation to eyes.

Ingestion : Low toxicity if swallowed.

Other Information : High-pressure injection under the skin may cause serious damage including local necrosis. Used grease may contain harmful impurities.

Signs and Symptoms : Local necrosis is evidenced by delayed onset of pain and tissue damage a few hours following injection. Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.

Material Safety Data Sheet

- Aggravated Medical Condition** : Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Skin.
- Environmental Hazards** : Not classified as dangerous for the environment.
- Additional Information** : Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

4. FIRST AID MEASURES

- General Information** : Not expected to be a health hazard when used under normal conditions.
- Inhalation** : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
- Skin Contact** : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop. Obtain medical attention even in the absence of apparent wounds.
- Eye Contact** : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
- Ingestion** : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
- Advice to Physician** : Treat symptomatically. High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function. Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

- Flash point** : > 180 °C / 356 °F (COC)
- Upper / lower Flammability or Explosion limits** : Typical 1 - 10 %(V)(based on mineral oil)
- Auto ignition temperature** : > 320 °C / 608 °F
- Specific Hazards** : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

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- Suitable Extinguishing Media** : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable Extinguishing Media** : Do not use water in a jet.
- Protective Equipment for Firefighters** : Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations.

- Protective measures** : Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
- Clean Up Methods** : Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

7. HANDLING AND STORAGE

- General Precautions** : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
- Handling** : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
- Storage** : Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Storage Temperature: 0 - 50 °C / 32 - 122 °F
- Recommended Materials** : For containers or container linings, use mild steel or high density polyethylene.
- Unsuitable Materials** : PVC.
- Additional Information** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Occupational Exposure Limits**

Material	Source	Type	ppm	mg/m3	Notation
Oil mist, mineral	ACGIH	TWA(Inhalable fraction.)		5 mg/m3	
Oil mist, mineral	OSHA Z1	PEL(Mist.)		5 mg/m3	

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Oil mist, mineral	OSHA Z1A	TWA(Mist.)		5 mg/m3	
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- Additional Information** : Due to the product's semi-solid consistency, generation of mists and dusts is unlikely to occur. Shell has adopted as Interim Standards the OSHA Z1A values that were established in 1989 and later rescinded.
- Exposure Controls** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.
- Personal Protective Equipment** : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
- Respiratory Protection** : No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65°C(149 °F)].
- Hand Protection** : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.
- Eye Protection** : Wear safety glasses or full face shield if splashes are likely to occur.
- Protective Clothing** : Skin protection not ordinarily required beyond standard issue work clothes.
- Monitoring Methods** : Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
- Environmental Exposure Controls** : Minimise release to the environment. An environmental assessment must be made to ensure compliance with local

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environmental legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Brown. Semi-solid at ambient temperature.
Odour	: Slight hydrocarbon.
pH	: Not applicable.
Initial Boiling Point and Boiling Range	: Data not available
Dropping point	: > 180 °C / 356 °F
Flash point	: > 180 °C / 356 °F (COC)
Upper / lower Flammability or Explosion limits	: Typical 1 - 10 %(V) (based on mineral oil)
Auto-ignition temperature	: > 320 °C / 608 °F
Vapour pressure	: < 0.5 Pa at 20 °C / 68 °F (estimated value(s))
Specific gravity	: Typical 0.9 at 15 °C / 59 °F
Density	: Typical 900 kg/m ³ at 15 °C / 59 °F
Water solubility	: Negligible.
n-octanol/water partition coefficient (log Pow)	: > 6 (based on information on similar products)
Kinematic viscosity	: Not applicable.
Vapour density (air=1)	: > 1 (estimated value(s))
Evaporation rate (nBuAc=1)	: Data not available

10. STABILITY AND REACTIVITY

Stability	: Stable.
Conditions to Avoid	: Extremes of temperature and direct sunlight.
Materials to Avoid	: Strong oxidising agents.
Hazardous Decomposition Products	: Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	: Information given is based on data on the components and the toxicology of similar products.
Acute Oral Toxicity	: Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat
Acute Dermal Toxicity	: Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit
Acute Inhalation Toxicity	: Not considered to be an inhalation hazard under normal conditions of use.
Skin Irritation	: Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
Eye Irritation	: Expected to be slightly irritating.
Respiratory Irritation	: Inhalation of vapours or mists may cause irritation.
Sensitisation	: Not expected to be a skin sensitiser.
Repeated Dose Toxicity	: Not expected to be a hazard.
Mutagenicity	: Not considered a mutagenic hazard.
Carcinogenicity	: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the

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International Agency for Research on Cancer (IARC). Other components are not known to be associated with carcinogenic effects.

- Reproductive and Developmental Toxicity** : Not expected to be a hazard.
- Additional Information** : Used grease may contain harmful impurities that have accumulated during use. The concentration of such harmful impurities will depend on use and they may present risks to health and the environment on disposal. ALL used grease should be handled with caution and skin contact avoided as far as possible. High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

12. ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

- Acute Toxicity** : Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract). Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.
- Mobility** : Semi-solid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.
- Persistence/degradability** : Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.
- Bioaccumulation** : Contains components with the potential to bioaccumulate.
- Other Adverse Effects** : Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

13. DISPOSAL CONSIDERATIONS

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.
- Container Disposal** : Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

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14. TRANSPORT INFORMATION**US Department of Transportation Classification (49CFR)**

This material is not subject to DOT regulations under 49 CFR Parts 171-180.

IMDG

This material is not classified as dangerous under IMDG regulations.

IATA (Country variations may apply)

This material is not classified as dangerous under IATA regulations.

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Federal Regulatory Status**Notification Status**

EINECS	All components listed or polymer exempt.
TSCA	All components listed.
DSL	All components listed.

Shell classifies this material as an "oil" under the CERCLA Petroleum Exclusion, therefore releases to the environment are not reportable under CERCLA.

SARA Hazard Categories (311/312)

No SARA 311/312 Hazards.

State Regulatory Status**California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)**

This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

NFPA Rating (Health, : 0, 1, 0

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- Fire, Reactivity)**
MSDS Version Number : 1.0
- MSDS Effective Date** : 02/28/2011
- MSDS Revisions** : A vertical bar (|) in the left margin indicates an amendment from the previous version.
- MSDS Regulation** : The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
- MSDS Distribution** : The information in this document should be made available to all who may handle the product.
- Disclaimer** : The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.

DIESEL FUEL (ON & OFF-ROAD)

Material Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Material Name	: Shell Diesel Extra
Recommended Uses	: Fuel for diesel engines used in both on-road and off-road applications (mining, quarrying and construction)
Product Code	: 002D1808
Manufacturer/Supplier	: The Shell Company of Australia Limited (ABN 46 004 610 459) 8 Redfern Road Hawthorn East Victoria 3123 Australia
Telephone	: +61 (0)3 9666 5444
Fax	: +61 (0)3 8823 4800
Emergency Telephone Number	: 1800 651 818 (within Australia only) +61 3 9663 2130 (International)

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

Classified as hazardous according to the criteria of NOHSC, and not classified as Dangerous Goods according to the Australian Dangerous Goods Code.

Symbol(s)	: Xn Harmful. N Dangerous for the environment.
R-phrases(s)	: R40 Limited evidence of carcinogenic effect. R65 Harmful: may cause lung damage if swallowed. R66 Repeated exposure may cause skin dryness or cracking. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	: S2 Keep out of the reach of children. S36/37 Wear suitable protective clothing and gloves. S61 Avoid release to the environment. Refer to special instructions/Safety data sheets. S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
Health Hazards	: Slightly irritating to respiratory system. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache and nausea. May cause moderate irritation to skin. Repeated exposure may cause skin dryness or cracking. Harmful: may cause lung damage if swallowed. Limited evidence of carcinogenic effect.
Signs and Symptoms	: If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Defatting dermatitis signs and symptoms may include a

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- Safety Hazards** : burning sensation and/or a dried/cracked appearance.
: May ignite on surfaces at temperatures above auto-ignition temperature. Vapour in the headspace of tanks and containers may ignite and explode at temperatures exceeding auto-ignition temperature, where vapour concentrations are within the flammability range. Not classified as flammable but will burn. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire.
- Environmental Hazards** : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Additional Information** : This product is intended for use in closed systems only.
- SUSDP Schedule** : Not scheduled. When packed in containers having capacity of greater than 20 litres.
- SUSDP Schedule** S5. When packed in containers having capacity of less than 20 litres.

3. COMPOSITION/INFORMATION ON INGREDIENTS

- Preparation description** : Complex mixture of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons with carbon numbers predominantly in the C9 to C25 range. May also contain several additives at <0.1% v/v each. May contain cetane improver (Ethyl Hexyl Nitrate) at <0.2% v/v. May contain catalytically cracked oils in which polycyclic aromatic compounds, mainly 3-ring but some 4- to 6-ring species are present.

Hazardous Components

Chemical Identity	CAS	EINECS	Symbol(s)	R-phrase(s)	Conc.
Fuels, diesel, no.2	68476-34-6	270-676-1	Xn, N	R40; R65; R66; R51/53	< 100.00 %

- Additional Information** : Dyes and markers can be used to indicate tax status and prevent fraud.
Refer to chapter 16 for full text of EC R-phrases.

4. FIRST AID MEASURES

- Inhalation** : Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
- Skin Contact** : Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.
- Eye Contact** : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
- Ingestion** : If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever

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Advice to Physician : greater than 101° F (37° C), shortness of breath, chest congestion or continued coughing or wheezing.
: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Specific Hazards : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Oxides of sulphur. Unidentified organic and inorganic compounds. Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. Flammable vapours may be present even at temperatures below the flash point.

Suitable Extinguishing Media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media : Do not use water in a jet.

Protective Equipment for Firefighters : Wear full protective clothing and self-contained breathing apparatus.

Additional Advice : Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations. Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly.

Protective measures : Do not breathe fumes, vapour. Do not operate electrical equipment. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Clean Up Methods : For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. Shovel into a suitable clearly marked container for disposal or reclamation in

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Additional Advice : accordance with local regulations.
: Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. Maritime spillages should be dealt with using a Shipboard Oil Pollution Emergency Plan (SOPEP), as required by MARPOL Annex 1 Regulation 26.

7. HANDLING AND STORAGE

General Precautions : Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Air-dry contaminated clothing in a well-ventilated area before laundering. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Prevent spillages. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Never siphon by mouth. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse. For comprehensive advice on handling, product transfer, storage and tank cleaning refer to the product supplier. Maintenance and Fuelling Activities - Avoid inhalation of vapours and contact with skin. Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements. AS 1940:2004 The storage and handling of flammable and combustible liquids.

Handling : Avoid inhaling vapour and/or mists. Avoid prolonged or repeated contact with skin. When using do not eat or drink. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Earth all equipment. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. The vapour is heavier than air, spreads along the ground and distant ignition is possible.

Storage : Drum and small container storage: Drums should be stacked to a maximum of 3 high. Use properly labelled and closeable containers. Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bunded). Locate tanks away from heat and other sources of ignition. Must be stored in a diked (bunded) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Vapours from tanks should not be released to atmosphere. Breathing losses during storage should be controlled by a suitable vapour treatment system. The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Keep in a bunded area with a sealed (low permeability) floor, to provide containment against spillage. Prevent ingress of water.

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- Product Transfer** : Avoid splash filling. Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. Keep containers closed when not in use. Do not use compressed air for filling, discharging or handling. Contamination resulting from product transfer may give rise to light hydrocarbon vapour in the headspace of tanks that have previously contained gasoline. This vapour may explode if there is a source of ignition. Partly filled containers present a greater hazard than those that are full, therefore handling, transfer and sampling activities need special care.
- Recommended Materials** : For containers, or container linings use mild steel, stainless steel. Aluminium may also be used for applications where it does not present an unnecessary fire hazard. Examples of suitable materials are: high density polyethylene (HDPE) and Viton (FKM), which have been specifically tested for compatibility with this product. For container linings, use amine-adduct cured epoxy paint. For seals and gaskets use: graphite, PTFE, Viton A, Viton B.
- Unsuitable Materials** : Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene.; However, some may be suitable for glove materials.
- Container Advice** : Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.
- Additional Information** : Ensure that all local regulations regarding handling and storage facilities are followed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Naphthalene	AU OEL	TWA	10 ppm	52 mg/m ³	
	AU OEL	STEL	15 ppm	79 mg/m ³	
Oil mist, mineral	AU OEL	TWA [Mist.]		5 mg/m ³	

- Additional Information** : In the absence of a national exposure limit, the American Conference of Governmental Industrial Hygienists (ACGIH) recommends the following values for Diesel Fuel: TWA - 100 mg/m³ Critical effects based on Skin and Irritation.
- Exposure Controls** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Local exhaust ventilation is recommended. Eye washes and showers

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	for emergency use.
Personal Protective Equipment	: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers. AS/NZS 1337: Eye protectors for industrial applications. AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. AS/NZS 1715: Selection, use and maintenance of respiratory protective devices. AS/NZS 1716: Respiratory protective devices.
Respiratory Protection	: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. All respiratory protection equipment and use must be in accordance with local regulations.
Hand Protection	: Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Select gloves tested to a relevant standard (e.g. Europe EN374, US F739). When prolonged or frequent repeated contact occurs, Nitrile gloves may be suitable. (Breakthrough time of > 240 minutes.) For incidental contact/splash protection Neoprene, PVC gloves may be suitable.
Eye Protection	: Chemical splash goggles (chemical monogoggles). Approved to EU Standard EN166.
Protective Clothing	: Chemical resistant gloves/gauntlets, boots, and apron (where risk of splashing).
Monitoring Methods	: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
Environmental Exposure Controls	: Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Yellow. Pale straw. Colourless. Liquid.
Odour	: May contain a reodorant
pH	: Data not available
Initial Boiling Point and Boiling Range	: 170 - 390 °C / 338 - 734 °F
Freezing/melting point	: Data not available
Flash point	: Typical 63 °C / 145 °F (ASTM D-93 / PMCC)

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Lower / upper Flammability or Explosion limits	: 1 - 6 %(V)
Auto-ignition temperature	: > 220 °C / 428 °F
Vapour pressure	: < 1 hPa at 20 °C / 68 °F
Specific gravity	: Data not available
Density	: Typical 0.84 g/cm ³ at 15 °C / 59 °F
Solubility in other solvents	: Data not available
n-octanol/water partition coefficient (log Pow)	: 3 - 6
Kinematic viscosity	: 2 - 4.5 mm ² /s at 40 °C / 104 °F
Vapour density (air=1)	: Data not available

10. STABILITY AND REACTIVITY

Stability	: Stable under normal conditions of use.
Conditions to Avoid	: Avoid heat, sparks, open flames and other ignition sources.
Materials to Avoid	: Strong oxidising agents.
Hazardous Decomposition Products	: Hazardous decomposition products are not expected to form during normal storage. Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	: Information given is based on product data, a knowledge of the components and the toxicology of similar products.
Acute Oral Toxicity	: Low toxicity:LD50 >2000 mg/kg, Rat Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Acute Dermal Toxicity	: Low toxicity:LD50 >2000 mg/kg, Rabbit
Acute Inhalation Toxicity	: Low toxicity: LC50 >5 mg/l / 4 h, Rat High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin Irritation	: May cause moderate skin irritation (but insufficient to classify). Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.
Eye Irritation	: Slightly irritating.
Respiratory Irritation	: Slightly irritating.
Sensitisation	: Not a skin sensitiser.
Repeated Dose Toxicity	: Kidney: caused kidney effects in male rats which are not considered relevant to humans
Mutagenicity	: In-vitro mutagenicity studies show that mutagenic activity is related to 4-6 ring polycyclic aromatic content.
Carcinogenicity	: Limited evidence of carcinogenic effect. Repeated skin contact has resulted in irritation and skin cancer in animals.
Reproductive and Developmental Toxicity	: Not expected to be a developmental toxicant.

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12. ECOLOGICAL INFORMATION

Information given is based on a knowledge of the components and the ecotoxicology of similar products. Fuels are typically made from blending several refinery streams. Ecotoxicological studies have been carried out on a variety of hydrocarbon blends and streams but not those containing additives.

- Acute Toxicity** : Toxic:LL/EL/IL50 1-10 mg/l(to aquatic organisms)(LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).
- Mobility** : Floats on water. Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. Large volumes may penetrate soil and could contaminate groundwater. Contains volatile constituents.
- Persistence/degradability** : Major constituents are inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.
- Bioaccumulation** : Contains constituents with the potential to bioaccumulate.
- Other Adverse Effects** : Films formed on water may affect oxygen transfer and damage organisms.

13. DISPOSAL CONSIDERATIONS

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
- Container Disposal** : Send to drum recoverer or metal reclaimer. Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Do not pollute the soil, water or environment with the waste container. Comply with any local recovery or waste disposal regulations.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION

ADG

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This material is not classified as dangerous according to the Australian Dangerous Goods Code.

IMDG

Identification number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
Technical name : (Gas oil - unspecified)
Class / Division : 9
Packing group : III
Marine pollutant: Yes

IATA (Country variations may apply)

UN No. : 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
Technical name : (Gas oil - unspecified)
Class / Division : 9
Packing group : III

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

SUSDP Schedule : Not scheduled. When packed in containers having capacity of greater than 20 litres.
S5. When packed in containers having capacity of less than 20 litres.

AICS : All components are listed or exempt

Classification triggering components : Contains fuels, diesel.

Other Information : National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2011] List of Designated Hazardous Substances [NOHSC:10005]. Approved Criteria for Classifying Hazardous Substances [NOHSC:1008]. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003]. Australian Dangerous Goods Code. Standard Uniform Scheduling of Drugs and Poisons.

16. OTHER INFORMATION

Additional Information : This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety

Material Safety Data Sheet

R-phrases(s)	matters.
R40	Limited evidence of carcinogenic effect.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
MSDS Version Number	: 1.2
MSDS Effective Date	: 07.05.2010
MSDS Revisions	: A vertical bar () in the left margin indicates an amendment from the previous version.
MSDS Regulation Uses and Restrictions	: This product must not be used in applications other than those recommended in Section 1, without first seeking the advice of the supplier. This product is not to be used as a solvent or cleaning agent; for lighting or brightening fires; as a skin cleanser.
MSDS Distribution	: The information in this document should be made available to all who may handle the product.
Disclaimer	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

GASOLINE

Material Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Material Name	: Shell V Power
Recommended Uses	: Fuel for spark ignition engines designed to run on unleaded fuel.
Other names	: GASOLINE
Product Code	: 002D0181
Manufacturer/Supplier	: The Shell Company of Australia Limited (ABN 46 004 610 459) 8 Redfern Road Hawthorn East Victoria 3123 Australia
Telephone	: +61 (0)3 9666 5444
Fax	: +61 (03) 8823 4800
Emergency Telephone Number	: 1800 651 818 (within Australia only) Poisons Information Centre: Australia 13 11 26

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.
Classified as hazardous according to the criteria of NOHSC, and as Dangerous Goods according to the Australian Dangerous Goods Code.

Symbol(s)	: F+ Extremely flammable. T Toxic. N Dangerous for the environment.
R-phrases(s)	: R12 Extremely flammable. R38 Irritating to skin. R45 May cause cancer. R46 May cause heritable genetic damage. R63 Possible risk of harm to the unborn child. R65 Harmful: may cause lung damage if swallowed. R67 Vapours may cause drowsiness and dizziness. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	: S2 Keep out of the reach of children. S29 Do not empty into drains. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S53 Avoid exposure. Obtain special instructions before use. S61 Avoid release to the environment. Refer to special instructions/Safety data sheets. S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
Health Hazards	: Vapours may cause drowsiness and dizziness. Slightly irritating to respiratory system. Irritating to skin. Moderately irritating to eyes. Harmful: may cause lung damage if swallowed. Possibility of organ or organ system damage from

Material Safety Data Sheet

	<p>prolonged exposure; see Chapter 11 for details. Target organ(s): Blood-forming organs. Peripheral nervous system. May cause heritable genetic damage. Possible risk of harm to the unborn child. A component or components of this material may cause cancer. This product contains benzene which may cause leukaemia (AML - acute myelogenous leukaemia). May cause MDS (Myelodysplastic Syndrome).</p>
Signs and Symptoms	: Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Eye irritation signs and symptoms may include a burning sensation and a temporary redness of the eye. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. Damage to blood-forming organs may be evidenced by: a) fatigue and anemia (RBC), b) decreased resistance to infection, and/or excessive bruising and bleeding (platelet effect). Peripheral nerve damage may be evidenced by impairment of motor function (incoordination, unsteady walk, or muscle weakness in the extremities, and/or loss of sensation in the arms and legs). Auditory system effects may include temporary hearing loss and/or ringing in the ears.
Safety Hazards	: Extremely flammable. Electrostatic charges may be generated during handling. Electrostatic discharge may cause fire. Liquid evaporates quickly and can ignite leading to a flash fire, or an explosion in a confined space.
Environmental Hazards	: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Additional Information	: This product is intended for use in closed systems only.
SUSMP Schedule	: S5. When packed in containers having a capacity of 20 litres or less.
SUSMP Schedule	Not scheduled when packed in containers having capacity of greater than 20 litres.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Preparation Description	: Complex mixture of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons (including benzene at 1.0%v/v maximum), with carbon numbers predominantly in the C4 to C12 range. May also contain several additives at <0.1% v/v each.
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Hazardous Components

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Chemical Identity	CAS	EINECS	Symbol(s)	R-phrase(s)	Conc.
Gasoline, low boiling point naphtha	86290-81-5	289-220-8	F+, Xi, T, Xn, N	R12; R38; R45; R46; R63; R65; R67; R51/53	90.00 - 100.00 %

Additional Information : Contains Benzene, CAS # 71-43-2. Contains Toluene, CAS # 108-88-3. Contains Ethylbenzene, CAS # 100-41-4. Contains n-Hexane, CAS # 110-54-3. Contains Xylene (Mixed Isomers), CAS # 1330-20-7. Contains Naphthalene, CAS # 91-20-3. Contains Cyclohexane, CAS# 110-82-7. Contains Tri-methyl-benzene (all isomers), CAS# 25551-13-7. Dyes and markers can be used to indicate tax status and prevent fraud. Refer to chapter 16 for full text of EC R-phrases.

4. FIRST AID MEASURES

Inhalation : Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.

Skin Contact : Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.

Eye Contact : Flush eyes with water while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision, or swelling persist transport to the nearest medical facility for additional treatment.

Ingestion : If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

Advice to Physician : Treat symptomatically.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Specific Hazards : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Will float and can be reignited on surface water.

Suitable Extinguishing Media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

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- Unsuitable Extinguishing Media** : Do not use direct water jets on the burning product as they could cause a steam explosion and spread of the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.
- Protective Equipment for Firefighters** : Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.
- Additional Advice** : If the fire cannot be extinguished the only course of action is to evacuate immediately. Keep adjacent containers cool by spraying with water. If possible remove containers from the danger zone. Contain residual material at affected sites to prevent material from entering drains (sewers), ditches, and waterways.

6. ACCIDENTAL RELEASE MEASURES

Observe the relevant local and international regulations. Avoid contact with skin, eyes and clothing. Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Material Safety Data Sheet. If contamination of sites occurs remediation may require specialist advice. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Take precautionary measures against static discharges.

- Protective measures** : Vapour can travel for considerable distances both above and below the ground surface. Underground services (drains, pipelines, cable ducts) can provide preferential flow paths. Do not breathe fumes, vapour. Take measures to minimise the effects on groundwater. Contain residual material at affected sites to prevent material from entering drains (sewers), ditches, and waterways. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.
- Clean Up Methods** : For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
- Additional Advice** : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained.

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Maritime spillages should be dealt with using a Shipboard Oil Pollution Emergency Plan (SOPEP), as required by MARPOL Annex 1 Regulation 26.

7. HANDLING AND STORAGE

- General Precautions** : Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Air-dry contaminated clothing in a well-ventilated area before laundering. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse. Turn off all battery operated portable electronic devices (examples include: cellular phones, pagers and CD players) before operating gasoline pump. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Prevent spillages. For comprehensive advice on handling, product transfer, storage and tank cleaning refer to the product supplier. Do not use as a cleaning solvent or other non-motor fuel uses.
Vehicle fueling and vehicle workshop areas - Avoid inhalation of vapours and contact with skin, when filling or emptying a vehicle.
- Handling** : When using do not eat or drink. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Never siphon by mouth. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Avoid exposure.
- Storage** : Drum and small container storage: Keep containers closed when not in use. Drums should be stacked to a maximum of 3 high. Use properly labelled and closeable containers. Packaged product must be kept tightly closed and stored in a diked (bundled) well-ventilated area, away from, ignition sources and other sources of heat. Take suitable precautions when opening sealed containers, as pressure can build up during storage. Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bundled). Locate tanks away from heat and other sources of ignition. Cleaning, inspection and maintenance of storage tanks is a specialist operation, which requires the implementation of strict procedures and precautions.
- Product Transfer** : Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/sec until fill pipe submerged to twice its diameter, then ≤ 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling

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- Recommended Materials** : (for large storage tanks) before opening hatches or manholes. For container and container linings, use mild steel or aluminium. Aluminium may also be used for applications where it does not present an unnecessary fire hazard. Examples of suitable materials are: high density polyethylene (HDPE), polypropylene (PP), and Viton (FKM), which have been specifically tested for compatibility with this product. For container linings, use amine-adduct cured epoxy paint. For seals and gaskets use: graphite, PTFE, Viton A, Viton B.
- Unsuitable Materials** : Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene.; However, some may be suitable for glove materials.
- Container Advice** : Do not cut, drill, grind, weld or perform similar operations on or near containers. Gasoline containers must not be used for storage of other products. Containers, even those that have been emptied, can contain explosive vapours.
- Additional Information** : Ensure that all local regulations regarding handling and storage facilities are followed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Material	Source	Type	ppm	mg/m3	Notation
Gasoline, low boiling point naphtha	ACGIH	TWA	300 ppm		
	ACGIH	STEL	500 ppm		
Naphthalene	AU OEL	TWA	10 ppm	52 mg/m3	
	AU OEL	STEL	15 ppm	79 mg/m3	
	ACGIH	TWA	10 ppm		
	ACGIH	STEL	15 ppm		
	ACGIH	SKIN_DES			Can be absorbed through the skin.
Cyclohexane	ACGIH	TWA	100 ppm		
	AU OEL	TWA	100 ppm	350 mg/m3	
	AU OEL	STEL	300 ppm	1,050 mg/m3	
Xylene	ACGIH	TWA	100 ppm		
	ACGIH	STEL	150 ppm		
	AU OEL	TWA	80 ppm	350 mg/m3	
	AU OEL	STEL	150 ppm	655 mg/m3	
Toluene	ACGIH	TWA	20 ppm		
	AU OEL	TWA	50 ppm	191 mg/m3	
	AU OEL	STEL	150 ppm	574 mg/m3	
	AU OEL	SKIN_DES			Can be absorbed through the skin.

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Benzene	ACGIH	TWA	0.5 ppm		
	ACGIH	STEL	2.5 ppm		
	ACGIH	SKIN_DES			Can be absorbed through the skin.
	AU OEL	TWA	1 ppm	3.2 mg/m ³	
	SHELL IS	TWA	0.5 ppm	1.6 mg/m ³	
	SHELL IS	STEL	2.5 ppm	8 mg/m ³	
n-hexane	ACGIH	TWA	50 ppm		
	ACGIH	SKIN_DES			Can be absorbed through the skin.
	AU OEL	TWA	20 ppm	72 mg/m ³	
Ethylbenzene	ACGIH	TWA	20 ppm		
	AU OEL	TWA	100 ppm	434 mg/m ³	
	AU OEL	STEL	125 ppm	543 mg/m ³	
Trimethylbenzene, all isomers	ACGIH	TWA	25 ppm		
	AU OEL	TWA	25 ppm	123 mg/m ³	

Additional Information : SHELL IS is the Shell Internal Standard. Skin notation means that significant exposure can also occur by absorption of liquid through the skin and of vapour through the eyes or mucous membranes.

Biological Exposure Index (BEI) - See reference for full details

Material	Determinant	Sampling time	BEI	Reference
Naphthalene	1-Hydroxypyrene, with hydrolysis (1-HP) in Urine	Sampling time: End of shift at end of work week.		ACGIH BEL (2008)
Xylene	Methylhippuric acids in Creatinine in urine	Sampling time: End of shift.	1.5 g/g	ACGIH BEL (01 2010)
Toluene	toluene in Urine	Sampling time: End of shift.	0.03 mg/l	ACGIH BEL (01 2010)
	toluene in Blood	Sampling time: Prior to last shift of work week.	0.02 mg/l	ACGIH BEL (01 2010)
	o-Cresol, with hydrolysis in Creatinine in urine	Sampling time: End of shift.	0.3 mg/g	ACGIH BEL (01 2010)
Benzene	S-Phenylmercapturic acid in Creatinine in urine	Sampling time: End of shift.	25 µg/g	ACGIH BEL (01 2010)
	t,t-Muconic acid in Creatinine in urine	Sampling time: End of shift.	500 µg/g	ACGIH BEL (01 2010)

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n-hexane	2,5-Hexanedion, without hydrolysis in Urine	Sampling time: End of shift at end of work week.	0.4 mg/l	ACGIH BEL (01 2010)
Ethylbenzene	Sum of mandelic acid and phenylglyoxylic acid in Creatinine in urine	Sampling time: End of shift at end of work week.	0.7 g/g	ACGIH BEL (01 2010)
	Ethyl benzene in End-exhaled air	Sampling time: Not critical.		ACGIH BEL (01 2010)

Data not available

Material
Benzene**Source**
AU OEL**Hazard Designation**
Confirmed human carcinogen.

- Exposure Controls** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Local exhaust ventilation is recommended. Eye washes and showers for emergency use.
- Personal Protective Equipment** : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers. AS/NZS 1337: Eye protectors for industrial applications. AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. AS/NZS 1715: Selection, use and maintenance of respiratory protective devices. AS/NZS 1716: Respiratory protective devices.
- Respiratory Protection** : If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus. All respiratory protection equipment and use must be in accordance with local regulations.
- Hand Protection** : Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Select gloves tested to a relevant standard (e.g. Europe EN374, US F739). When prolonged or frequent repeated

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	contact occurs, Nitrile gloves may be suitable. (Breakthrough time of > 240 minutes.) For incidental contact/splash protection Neoprene, PVC gloves may be suitable.
Eye Protection	: Chemical splash goggles (chemical monogoggles). Approved to EU Standard EN166.
Protective Clothing	: Chemical resistant gloves/gauntlets, boots, and apron (where risk of splashing).
Monitoring Methods	: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
Environmental Exposure Controls	: Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Yellow. Liquid.
Odour	: Hydrocarbon
pH	: Data not available
Initial Boiling Point and Boiling Range	: 25 - 210 °C / 77 - 410 °F
Freezing/melting point	: Data not available
Flash point	: < -40 °C / -40 °F
Upper / lower Flammability or Explosion limits	: 1 - 8 %(V)
Auto-ignition temperature	: Data not available
Vapour pressure	: 620 - 800 hPa at 37.8 °C / 100.0 °F
Specific gravity	: Data not available
Density	: Typical 0.750 g/cm ³ at 15 °C / 59 °F
Solubility in other solvents	: Data not available
n-octanol/water partition coefficient (log Pow)	: 2 - 6
Kinematic viscosity	: 0.5 - 0.75 mm ² /s at 40 °C / 104 °F
Vapour density (air=1)	: Data not available

10. STABILITY AND REACTIVITY

Stability	: Stable under normal conditions of use.
Conditions to Avoid	: Avoid heat, sparks, open flames and other ignition sources.
Materials to Avoid	: Strong oxidising agents.
Hazardous	: Hazardous decomposition products are not expected to form during normal storage. Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.
Decomposition Products	

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	: Information given is based on product data, a knowledge of the components and the toxicology of similar products.
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Acute Oral Toxicity	: Low toxicity:LD50 >2000 mg/kg, Rat Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Acute Dermal Toxicity	: Low toxicity:LD50 >2000 mg/kg, Rat
Acute Inhalation Toxicity	: Low toxicity: LC50 >5 mg/l / 4.00 h, Rat High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin Irritation	: Irritating to skin.
Eye Irritation	: Moderately irritating to eyes (but insufficient to classify).
Respiratory Irritation	: Based on human experience, breathing of vapours or mists may cause a temporary burning sensation to nose, throat and lungs.
Sensitisation	: Not a skin sensitiser.
Repeated Dose Toxicity	: Kidney: caused kidney effects in male rats which are not considered relevant to humans Blood-forming organs: repeated exposure affects the bone marrow. (Benzene) Peripheral nervous system: repeated exposure causes peripheral neuropathy in animals. (n-hexane)
Mutagenicity	: May cause heritable genetic damage. (Benzene) Mutagenicity studies on gasoline and gasoline blending streams have shown predominantly negative results.
Carcinogenicity	: Known human carcinogen. (Benzene) May cause leukaemia (AML - acute myelogenous leukemia). (Benzene) Inhalation exposure to mice causes liver tumours, which are not considered relevant to humans.
Reproductive and Developmental Toxicity	: Causes foetotoxicity at doses which are maternally toxic. (Toluene) Causes adverse effects on the foetus based on animal studies. (Toluene) Many case studies involving abuse during pregnancy indicate that toluene can cause birth defects, growth retardation and learning difficulties. (Toluene)
Additional Information	: Exposure to very high concentrations of similar materials has been associated with irregular heart rhythms and cardiac arrest. Prolonged and repeated exposures to high concentrations have resulted in hearing loss in rats. Solvent abuse and noise interaction in the work environment may cause hearing loss. (Toluene) Abuse of vapours has been associated with organ damage and death. (Toluene) May cause MDS (Myelodysplastic Syndrome). (Benzene)

12. ECOLOGICAL INFORMATION

Fuels are typically made from blending several refinery streams. Ecotoxicological studies have been carried out on a variety of hydrocarbon blends and streams but not those containing additives. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

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- Acute Toxicity** : Toxic:LL/EL/IL50 1-10 mg/l(to aquatic organisms)(LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).
- Mobility** : Floats on water. Evaporates within a day from water or soil surfaces. Large volumes may penetrate soil and could contaminate groundwater. Contains volatile constituents.
- Persistence/degradability** : Major constituents are expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.
- Bioaccumulation** : Contains constituents with the potential to bioaccumulate.
- Other Adverse Effects** : Films formed on water may affect oxygen transfer and damage organisms.

13. DISPOSAL CONSIDERATIONS

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.
- Container Disposal** : Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not, puncture, cut, or weld uncleaned drums. Send to drum recoverer or metal reclaimer. Do not pollute the soil, water or environment with the waste container.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION

ADG

UN number	1203
Proper shipping name	GASOLINE
Class	3
Packing group	II
Hazchem Code	3YE

IMDG

Identification number	UN 1203
Proper shipping name	PETROL
Class / Division	3
Packing group	II

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Marine pollutant: Yes

IATA (Country variations may apply)

UN No. : 1203
Proper shipping name : Gasoline
Class / Division : 3
Packing group : II

Additional Information : MARPOL Annex 1 rules apply for bulk shipments by sea.

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

SUSMP Schedule : S5. When packed in containers having a capacity of 20 litres or less.

Not scheduled when packed in containers having capacity of greater than 20 litres.

Chemical Inventory Status

AICS : All components are listed or exempt.

Classification triggering components : Contains gasoline, low boiling point naphtha, unspecified.

Other Information : National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2011] List of Designated Hazardous Substances [NOHSC:10005]. Approved Criteria for Classifying Hazardous Substances [NOHSC:1008]. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003]. Australian Dangerous Goods Code. Standard for the Uniform Scheduling of Medicines and Poisons.

16. OTHER INFORMATION

Additional Information : This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters.

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R-phrase(s)

R12	Extremely flammable.
R38	Irritating to skin.
R45	May cause cancer.
R46	May cause heritable genetic damage.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63	Possible risk of harm to the unborn child.
R65	Harmful: may cause lung damage if swallowed.
R67	Vapours may cause drowsiness and dizziness.

MSDS Version Number	:	4.0
MSDS Effective Date	:	15.07.2011
MSDS Revisions	:	A vertical bar () in the left margin indicates an amendment from the previous version.
MSDS Regulation	:	
Uses and Restrictions	:	This product must not be used in applications other than those recommended in Section 1, without first seeking the advice of the supplier. This product is not to be used as a solvent or cleaning agent; for lighting or brightening fires; as a skin cleanser. This product is designed only to suit automotive applications and no provision is made for the requirements of aviation applications.
MSDS Distribution	:	The information in this document should be made available to all who may handle the product.
Disclaimer	:	This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

HYDRAULIC OIL

Material Safety Data Sheet**1. MATERIAL AND COMPANY IDENTIFICATION**

Material Name : Shell Spirax S4 TXM
Uses : Transmission oil.

Manufacturer/Supplier : Shell Guam
 643 Chalan San Antonio
 Suite 100
 Tamuning
 96913-3644
 Guam

MSDS Request : 671-647-0123

Emergency Telephone Number

Spill Information : 671-565-2300

Health Information : 671-565-2300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Highly refined mineral oils and additives.

The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

3. HAZARDS IDENTIFICATION**Emergency Overview**

Appearance and Odour : Amber. Liquid at room temperature. Slight hydrocarbon.

Health Hazards : Not classified as dangerous for supply or conveyance.

Safety Hazards : Not classified as flammable but will burn.

Environmental Hazards : Not classified as dangerous for the environment.

Health Hazards : Not expected to be a health hazard when used under normal conditions.

**Health Hazards
 Inhalation** : Under normal conditions of use, this is not expected to be a primary route of exposure.

Skin Contact : Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Eye Contact : May cause slight irritation to eyes.

Ingestion : Low toxicity if swallowed.

Other Information : Used oil may contain harmful impurities.

Signs and Symptoms : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.

Aggravated Medical Condition : Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Skin.

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Environmental Hazards : Not classified as dangerous for the environment.
Additional Information : Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

4. FIRST AID MEASURES

General Information : Not expected to be a health hazard when used under normal conditions.
Inhalation : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
Skin Contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
Eye Contact : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
Ingestion : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
Advice to Physician : Treat symptomatically.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Flash point : Typical 220 °C / 428 °F (COC)
Upper / lower Flammability or Explosion limits : Typical 1 - 10 %(V)(based on mineral oil)
Auto ignition temperature : > 320 °C / 608 °F
Specific Hazards : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.
Suitable Extinguishing Media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable Extinguishing Media : Do not use water in a jet.
Protective Equipment for Firefighters : Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations.

Protective measures : Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
Clean Up Methods : Slippery when spilt. Avoid accidents, clean up immediately.

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- Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
- Additional Advice** : Local authorities should be advised if significant spillages cannot be contained.

7. HANDLING AND STORAGE

- General Precautions** : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
- Handling** : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
- Storage** : Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Storage Temperature: 0 - 50 °C / 32 - 122 °F
- Recommended Materials** : For containers or container linings, use mild steel or high density polyethylene.
- Unsuitable Materials** : PVC.
- Additional Information** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Occupational Exposure Limits**

Material	Source	Type	ppm	mg/m3	Notation
Oil mist, mineral	ACGIH	TWA(Mist.)		5 mg/m3	
Oil mist, mineral	ACGIH	STEL(Mist.)		10 mg/m3	

- Exposure Controls** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.
- Personal Protective Equipment** : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
- Respiratory Protection** : No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene

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- practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65°C(149 °F)].
- Hand Protection** : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.
- Eye Protection** : Wear safety glasses or full face shield if splashes are likely to occur.
- Protective Clothing** : Skin protection not ordinarily required beyond standard issue work clothes.
- Monitoring Methods** : Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
- Environmental Exposure Controls** : Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Amber. Liquid at room temperature.
- Odour : Slight hydrocarbon.
- pH : Not applicable.
- Initial Boiling Point and Boiling Range : > 280 °C / 536 °F estimated value(s)
- Pour point : Typical -42 °C / -44 °F
- Flash point : Typical 220 °C / 428 °F (COC)
- Upper / lower Flammability or Explosion limits : Typical 1 - 10 %(V) (based on mineral oil)
- Auto-ignition temperature : > 320 °C / 608 °F
- Vapour pressure : < 0.5 Pa at 20 °C / 68 °F (estimated value(s))
- Specific gravity : Typical 0.882 at 15 °C / 59 °F
- Density : Typical 882 kg/m³ at 15 °C / 59 °F
- Water solubility : Negligible.

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n-octanol/water partition coefficient (log Pow)	: > 6 (based on information on similar products)
Kinematic viscosity	: Typical 60 mm ² /s at 40 °C / 104 °F
Vapour density (air=1)	: > 1 (estimated value(s))
Evaporation rate (nBuAc=1)	: Data not available

10. STABILITY AND REACTIVITY

Stability	: Stable.
Conditions to Avoid	: Extremes of temperature and direct sunlight.
Materials to Avoid	: Strong oxidising agents.
Hazardous Decomposition Products	: Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	: Information given is based on data on the components and the toxicology of similar products.
Acute Oral Toxicity	: Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat
Acute Dermal Toxicity	: Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit
Acute Inhalation Toxicity	: Not considered to be an inhalation hazard under normal conditions of use.
Skin Irritation	: Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
Eye Irritation	: Expected to be slightly irritating.
Respiratory Irritation	: Inhalation of vapours or mists may cause irritation.
Sensitisation	: Not expected to be a skin sensitiser.
Repeated Dose Toxicity	: Not expected to be a hazard.
Mutagenicity	: Not considered a mutagenic hazard.
Carcinogenicity	: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC). Other components are not known to be associated with carcinogenic effects.
Reproductive and Developmental Toxicity	: Not expected to be a hazard.
Additional Information	: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible.

12. ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

Acute Toxicity	: Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 >
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100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract). Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

- Mobility** : Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.
- Persistence/degradability** : Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.
- Bioaccumulation** : Contains components with the potential to bioaccumulate.
- Other Adverse Effects** : Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

13. DISPOSAL CONSIDERATIONS

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.
- Container Disposal** : Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

14. TRANSPORT INFORMATION**US Department of Transportation Classification (49CFR)**

This material is not subject to DOT regulations under 49 CFR Parts 171-180.

IMDG

This material is not classified as dangerous under IMDG regulations.

IATA (Country variations may apply)

This material is not classified as dangerous under IATA regulations.

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Federal Regulatory Status**Notification Status**

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EINECS	All components listed or polymer exempt.
TSCA	All components listed.
DSL	All components listed.

Shell classifies this material as an "oil" under the CERCLA Petroleum Exclusion, therefore releases to the environment are not reportable under CERCLA.

SARA Hazard Categories (311/312)

No SARA 311/312 Hazards.

State Regulatory Status**California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)**

This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

NFPA Rating (Health, Fire, Reactivity)	: 0, 1, 0
MSDS Version Number	: 1.0
MSDS Effective Date	: 27.09.2010
MSDS Revisions	: A vertical bar () in the left margin indicates an amendment from the previous version.
MSDS Regulation	: The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
MSDS Distribution	: The information in this document should be made available to all who may handle the product.
Disclaimer	: The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.

Material Safety Data Sheet

Shell Spirax S4 TXM
MSDS#
Version 1.0
Effective Date 27.09.2010
According to OSHA Hazard Communication Standard, 29 CFR
1910.1200

PIPE LUBE

Material Safety Data Sheet

Fastite 27-A Pipe Joint Lubricant

Date of Preparation: August 1998/Revised 4/2006

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Fastite 27-A Pipe Joint Lubricant
Chemical Formula: 88-6
Manufacturer: JTM Products, Inc., 31025 Carter Street, Solon, OH 44139, Phone (440) 287-2302, FAX (440) 287-3095
(CHEM-TEL 24-hour emergency: (800) 255-3924)

Section 2 - Composition / Information on Ingredients

Proprietary blend of soap [CAS#61790-44-1], glycol [CAS#57-55-6] and filler [CAS#12001-26-2].
revised February 2005 - John Cahoon

Section 3 - Hazards Identification

☆☆☆☆☆ **Emergency Overview** ☆☆☆☆☆

Potential Health Effects

Primary Entry Routes: Not Hazardous
Carcinogenicity: IARC, NTP, and OSHA do not list the ingredients in Fastite 27-A Pipe Joint Lubricant as carcinogens.

HMIS
H 1
F 0
R 0
PPE†
†Sec. 8

Section 4 - First Aid Measures

Eye Contact: Flush with copious volumes of water for 15 minutes while holding eyelids open.
Skin Contact: Wash with water.
If irritation persists, call a physician.

Section 5 - Fire-Fighting Measures

Flash Point: >220 °F (>104 °C) **LEL:** NA
Flash Point Method: NA, contains water **UEL:** NA
Autoignition Temperature: NA **Flammability Classification:** 0
Extinguishing Media: Water, water fog, alcohol foam, carbon dioxide or dry chemical are all suitable.
Unusual Fire or Explosion Hazards: None
Hazardous Combustion Products: None
Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.
Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.



Section 6 - Accidental Release Measures

Spill /Leak Procedures: This product is a biodegradable soap.
Containment: For large spills, dike far ahead of spill for later disposal.
Cleanup: Place the bulk of any spilled material into drums, then rinse any remaining material to sewage treatment facility, in accordance with any applicable regulations.
Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: No special precautions are required.
Storage Requirements: No special precautions are required.
Regulatory Requirements: No known regulatory requirement for handling and storage.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls:
Ventilation: Provide general or local exhaust ventilation systems.
Administrative Controls:
Respiratory Protection: If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Fastite 27-A Pipe Joint Lubricant

Protective Clothing/Equipment: Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Physical State: Paste	Water Solubility: complete solubility in water
Appearance and Odor: amber paste, bland odor	Boiling Point: >220 °F
Odor Threshold: NA	Freezing/Melting Point: <32 °F
Vapor Pressure: NA	Viscosity: viscous paste
Vapor Density (Air=1): NA	Refractive Index: unknown
Formula Weight: NA (blend)	Surface Tension: unknown
Density: 8.3 lbs./gal.	% Volatile: 28 [Revised April 2006]
Specific Gravity (H₂O=1, at 4 °C): 1.0	Evaporation Rate: NA
pH: 11	

Section 10 - Stability and Reactivity

Stability: Fastite 27-A Pipe Joint Lubricant is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization will not occur.

Chemical Incompatibilities:

Conditions to Avoid: Avoid contact with strong oxidizing agents. [Revised April 2006]

Hazardous Decomposition Products: Thermal oxidative decomposition of Fastite 27-A Pipe Joint Lubricant can produce oxides of carbon and nitrogen.

Section 11- Toxicological Information

Toxicity Data:

Eye Effects: Eye irritant [based on blended ingredients].

Skin Effects: Slight skin irritant if allowed to remain in contact.

Section 12 - Ecological Information

Ecotoxicity: Environmental Fate

Environmental Transport: Unknown. **Environmental Degradation:** Soaps are well known to be biodegradable.

Soil Absorption/Mobility: Unknown.

Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Section 14 - Transport Information

Not hazardous under DOT regulations.

Section 15 - Regulatory Information

EPA Regulations: None apply.

Section 16 - Other Information

Prepared By: B. Noragon **Approved By:** B. Roll

Disclaimer: JTM PRODUCTS, INC. makes no warranty, expressed or implied, as to the accuracy, completeness, or reliability of information contained herein, except that such information is, to the best of JTM's knowledge and belief, accurate as of the date indicated. It is for the purchaser and/or user to decide whether this information is suitable for his purposes.

Reviewed/Section 2 revised February 2005 by John Cahoon; Reviewed/Section 9 & 10 revised April 2006 by John Cahoon