Safety and Health Policy





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Management Commitment To Safety Section 1

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Drilling Service Company places a high value on the safety of its employees. Drilling Service Company is committed to providing a safe workplace for all employees and has developed this program for injury prevention to involve management, supervisors, and employees in identifying and eliminating hazards that may develop during our work process.

It is the basic safety policy of this company that no task is so important that an employee must violate a safety rule or take a risk of injury or illness in order to get the job done.

Employees are required to comply with all company safety rules and are encouraged to actively participate in identifying ways to make our company a safer place to work. Every employee has the right, obligation, and the authority to stop any unsafe act!

Supervisors are responsible for the safety of their employees and as a part of their duties will check the workplace for unsafe conditions, watch employees for unsafe actions and take prompt action to eliminate any hazards.

Management will do its part by devoting the resources necessary to form a safety committee composed of management and elected employees. We will develop a system for identifying and correcting hazards. We will plan for foreseeable emergencies. We will provide initial and ongoing training for employees and supervisors. And, we will establish a disciplinary policy to insure that company safety policies are followed.

It's no accident that we have one of the best safety record achieved in our industry. From our family to yours, we pledge to help you work safely – above all else. We know that at the end of a long day, there's a seat at the dinner table waiting for each of us.

Sincerely, Drilling Service Company

Mark G. Murphy, President

Safety is a team effort – Let us all work together to keep this a safe and healthy workplace.



Bloodborne Pathogens

Section 2

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Purpose

This Bloodborne Pathogen Exposure Control Plan was written to meet Federal and State Occupational Health and Safety requirements. Federal and state regulations require protection for employees who in the event of injuries may contact blood or other potentially infectious materials as part of their job. Although none of Drilling Service Company employees are considered at risk based on their job assignment the Company does provide first aid kits at job sites. Employees who in event of injuries choose to provide Good Samaritan first aid to fellow workers or others need to be aware of the risks, and protective procedures. Protection is based upon knowledge, procedures, and personal protective equipment.

Procedures

Drilling Service Company will provide the necessary personal protective equipment at each work site. This equipment will include, but not be limited to, protective gloves, mouth barriers and eye protection. In addition, each employee will be informed of the risks involved with an exposure to human blood or other potentially infectious materials (OPIM), and the proper use of the personal protective equipment. This information will be made available through new employee orientation, training and job site safety meetings.

In the event of an actual or suspected exposure to human blood or OPIM, the employee will be required to immediately or as soon as possible, report the incident to his supervisor. Each exposure or suspected exposure will be evaluated on a case-by-case basis. Post-exposure reporting forms will be made available and completed as required. A supply of the necessary forms will be maintained at each job site.

Risk and Exposure Determination

Blood, body fluids and other potentially infectious materials may contain a number of pathogens, or disease causing organisms. These pathogens include the Human Immunodeficiency Virus (HIV), and the Hepatitis B Virus (HBV).

Exposure occurs when an individual contacts a virus. This may result when an open wound, puncture, cut, abrasion, eye, mouth, our other mucus membrane contacts blood or other potentially infectious material.

Employee Protection

Safe work practices must be used to reduce the risk of contact with Bloodborne pathogens. These practices include:

- Avoiding contact with blood or other potentially infectious materials through use of personal protective equipment; gloves, face and eye shields and CPR mouth shields (located in our first aid kits).
- Washing hands, face or other parts of the body suspected of coming into contact with blood, or blood contaminated materials. Wash with soap and water, or utilize other disinfectant materials even if personal protective equipment is worn.

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Appropriate personal protection equipment (gloves, mouth and eye barriers) to avoid or reduce the risk of contact is included with our first aid kits.

Contamination

Tools, supplies, equipment, clothing, or other items that have contacted or potentially contacted blood or other bodily fluids must be decontaminated as soon as practical to prevent possibility of exposure contact.

Hot soap and water, or one part of household bleach to 10 parts warm water may be used as disinfecting agent for Bloodborne pathogens. Other disinfectants are also available through commercial sources. Contaminated clothing, supplies, equipment or other items that are not practical to decontaminate are to be disposed as infectious waste. Contaminated clothing is not to be sent to a laundry service.

Post Exposure Evaluation and Follow Up

Any employee who believes that he/she has been exposed to blood or other potentially infectious materials at their work site are required to immediately report the exposure incident to their supervisor. Employees who experience an exposure will be provided a confidential post exposure evaluation and follow up. Evaluation and follow up will consist of:

- A confidential medical evaluation that documents details of the incident including route of exposure.
- If the exposure source is known, Drilling Service will request permission to determine the HIV/HBV status of the source individual.
- Providing test results from the source individual to the exposed employee (after both parties are informed about applicable laws and regulations concerning disclosure of the information)
- The exposed employee will be offered the option of having his/her blood collected for testing of HIV/HBV status.
- The exposed employee will be offered counseling, and treatment if recommended by the medical consultant. Counseling will provide information on any potential illnesses and/or symptoms which could result after the exposure; and actions available in the event symptoms do occur.

Interaction with Health Care Providers

Drilling Service will choose the health care professionals providing services for the Bloodborne Pathogen program. The participating professional will provide a confidential medical evaluation following an exposure incident. The professional will also provide a written medical opinion to the Company whenever an employee is referred to receive the HBV vaccine; and whenever an employee is referred for evaluation following an exposure incident.

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Written opinions will contain limited information to protect confidentiality of the employee. The Company will provide the employee with a copy of the medical written opinion within 15 days of evaluation. It will advise if the exposed employee has:

- Received vaccine
- Been seen by the professional
- > Received a confidential medical evaluation
- Informed of the results of evaluation
- > Advised of medical conditions resulting for exposure

The written opinion however, will not refer to any personal medical information shared with the employee during the medical evaluation.

Employee Training

All employees who may provide first aid will receive training on Bloodborne pathogens and the program provided by Drilling Service Company. The training will provide an interactive discussion of:

- □ Regulatory standards regarding Bloodborne Pathogens.
- □ How Bloodborne diseases are transmitted and the symptoms and illnesses that can result.
- □ The BBP program provided at Drilling Service Company as detailed in the written Exposure Control Plan.
- □ How exposure might occur and whom to contact in the event of exposure.
- □ Personal protective equipment including gloves, mouth and eye barriers, and bio-hazard disposal bags that are provided in the first aid kits.
- □ Training will be repeated annually.

Hand Washing Facilities

In the event that hand washing facilities are unavailable, antiseptic solutions will be available.

Recordkeeping

All records required by our BBP Program will be maintained by Drilling Service Company for a minimum of thirty years.

Universal Precautions

All bodily fluids will be considered potentially infectious.

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Employee Exposure Report

Name of exposed individual:	Position:
Date Incident Occurred:	. Time:
What type of exposure occurred? (i.e.; cut, spill, splash, broken skin, etc	z.):

Body part exposed? (i.e., mouth, eyes, skin break on hand, etc.):

Description of first aid provided:

Description of task being performed and conditions associated/contributing to the exposure:

In your opinion has an exposure as defined by OSHA occurred? YES/NO ("Exposure incident" means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee's duties.)

Exposed individual instructed/advised to report to a physician: YES/NO

Date:	Ti	ime:		
Physician Contact Informati	ion:			
Employee HBV Status:	Vaccinated	Declined Vaccination	Date: _	
Report compiled by Manage	ement:	(Signature)	_ Date:	
Supervisor Name:			_ Date:	



Caissons

Section 3

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HAZARDS SPECIFIC TO CAISSIONS

Hazard Awareness and Control

Drilling

- Check for and tighten any loose fittings at all hose and pipe connections.
- Check for worn or damaged hoses.
- Pressure gauges should be checked daily against an electronic tester.
- Secure chain and check for wear.

Drill Work Procedures

There are many different types and categories of drills. Drilling Service Company uses a wide variety of these drills from the large crane mounted auger drills, crawler drills, truck mount drills, and small fork-lift mounted or pallet jack mounted drills.

The main components are rotation heads or rotary tables, booms feed cables-chains-hydraulic crowd cylindersetc., power source, mobility components.

Rotation: Most common rotation heads are hydraulic powered, air powered or direct drive from a clutch, with various torque capabilities. The purpose of the rotation is to turn the drill bit, auger, down hole hammer or various other drill tools.

A few of the dangers associated with rotation are:

- The rotation is utilized to make and break connections when the drill tools are connected with threads.
- Sometimes the drill is equipped with "break out tongs" or "break out wrenches"; these devices are subjected to a very intense load if tool joints are made up tight. After attaching such a device both the drill operator and the assistant, as well as others who might be in the area need to a position that takes their body away from "the line of fire" (the direction broken parts may fly) until the joint is loosened.
- In some cases pipe wrenches are used to make and break connections. Pipe wrenches require that someone hold them to a backup point such as the drill boom. Never hold the wrench by surrounding it with your hand, hold the side of the wrench that is away from the backup, the breaking torque could "chop" a finger off very quickly.
- On some of the air drills "flat wrenches" are used to make and break connections, these are sometimes
 used to hold the drill steel at the top of the boom and are designed to fall to the ground when they have
 performed their task. These can sometimes fall prematurely always give them plenty of room and don't
 take your eye off them until they are safely on the ground.

Another issue to watch for is the process of adding drill tools to the drill string. The drill tools are very heavy and often slick and hard to hold. Avoid putting fingers, feet or other body parts in an awkward position. Visualize and plan the procedure you will use to accomplish the task. Assuming an awkward position could create a back injury or cause a slip and fall incident. Keep area picked up and pathways clear to avoid tripping or stumbling with a heavy load. As always, if the load is too heavy, **GET HELP**!

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Drill Boom: The drill boom comes in many configurations and is purpose designed, among other things, to accommodate the weight of drill tools and the length of the drill stroke.

- The drill boom has a number of attachments bolted and welded to the top. These parts are in operation above your head and out of the normal line of vision. They are subjected to vibration and unusual strain at times, bolts will break or loosen welds will crack and fail.
- The top area of the boom should be inspected often and no unnecessary loitering below the boom should be allowed.
- Sometimes during a move with the boom down drills tools will become loose or other parts have been laid in the boom. Be especially careful as the boom is raised to the vertical position some of these parts may come flying out as it is raised. Also sometimes drill lines may tighten and break as the raising boom applies tension.

Drill Head: The drill head(s) most commonly run up and down the boom on the working side of the boom. To locate the drill hole in the appropriate place, it is sometimes necessary to be very close to an existing building. This greatly restricts your options when trying to change tools or perform work – **ALWAYS HAVE AN ESCAPE ROUTE** in mind and don't allow it to become cluttered with extra tools or observers – this is your **SAFETY LANE**.

The drill head(s) are attached to the feed motors, usually by roller chains. These chains are subject to vibration and sometimes very unusual strain, such as riding up on a sprocket, causing the chain to stretch and break links. The chain is usually running inside the boom or behind the drill head and drill tools, so it is not readily visible to evaluate its condition. For this reason, it MUST be examined carefully often and replaced at the first sign of stress. NEVER ALLOW ANYONE TO STAND IN THE FALL ZONE of the drill head.

Drill Carrier: The drill carrier is basically a structure that will accommodate the size of the particular drill and provide stability and mobility.

• The drill carrier is another critical area of concern, as it moves from location to location, even though it is a matter of a few feet sometimes the operator may not be able to see well in all directions. Give it plenty of room and watch for anyone or any obstruction that may be in its path. If the drill is moving into a building or wall remember there is not much room to get way. DO NOT stand in front of the drill as it is moving into a location.

Some drills do not have provisions for locking out locomotion while it is drilling. This becomes especially critical in tight places. The operator may not be in position to see the locomotion levers and someone could inadvertently hit the lever with a piece of drill rod or casing. Thus causing the carrier to move and possibly pin someone. Be alert for this situation and rope off the access to the controls area wherever possible.

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Power Source: The power source is chosen for the purpose of the design which could be diesel engine, electric motor, air motor(s) or power take off from carrier engine.

The power source:

- DO'S:
 - o Perform daily inspections and regular scheduled maintenance
 - Direct exhaust fumes away from the work area
 - Check cooling system for restrictions or damage
 - Check emergency stops
 - o Use Lockout/Tagout procedures when performing maintenance
 - Protect electric cords or lines from damage repair damaged lines immediately.
- DON'T
 - Never fill fuel tank with engine running
 - Never perform maintenance with engine running
 - Kill all power and perform stored energy relief before attempting maintenance of any kind. FOLLOW LOCKOUT/TAGOUT PROCEDURES.

Beware of overhead and underground utilities!

Slurry Tanks

Employees shall not access the top of storage tanks unless proper fall protection is used. (Guard rails, continuous catwalks with no openings)

PROCEDURES FOR OILERS AND MAINTENANCE PERSONNEL

- If the attachment is missing guardrails on the ladder or catwalk platform, personal fall arrest equipment shall be utilized to perform maintenance until corrected.
- If required to access any point on the attachment off of the catwalk, personal fall protection is required.
- Warn the operator before performing any work within the swing radius.
- If any work is required on top of the cab or at any point on the crane above six feet, personal fall protection shall be used.
- Ensure all personnel are clear before swinging loads.

WORKING AROUND THE HOLE

- No person shall enter an uncased or un-shored hole, there are NO exceptions
- All holes shall be barricaded or covered in accordance with OSHA 29 CFR 1926.502
- Fall protection is required if you are exposed to the interior of the hole
- Tying off to the temporary casing at the lifting eye is an acceptable anchorage point.
- The temporary casing shall be left 38 to 42 inches above the ground (if this is not possible, short casings or fall protection must be utilized)

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WORKING AROUND THE HOLE, continued

- If there is evidence of undermining on the exterior of the casing, corrective measures shall be taken before employees enter the area.
- Employees shall stand clear of concrete trucks while backing up to avoid being crushed between the truck and casing.
- Employees shall stand clear of augers and buckets when clearing debris from them.

DOWN HOLE FALL PROTECTION

- Utilizing the lifting eye in the temporary casing as the primary attachment point will provide fall protection.
- If entry exceeds six feet, a rope grab or retractable lanyard shall be used.
- When a man-basket is to be utilized, the point of attachment will be located inside of the bucket.
- Personnel exposed to a fall greater than six feet, shall in any case utilize a harness and lanyard.

DOWN HOLE ACCESS/EGRESS

- If the liner or inner casing is high enough (2 feet from top of outer casing), stepping over casing is acceptable provided personal fall arrest equipment is utilized.
- If entry is to be to a point where the employee cannot simply step over the casing, a ladder that attaches to the casing shall be utilized along with personal fall arrest equipment.
- For down-hole entries that a ladder will not accommodate, a man-basket shall be utilized.

DOWN HOLE HAZARDOUS ATMOSPHERES

• Atmospheric testing shall be performed prior to any entry where the employee's head is below the top of the outer casing. Atmospheric testing will be accomplished by utilizing a four-gas monitor. The monitor shall test for CO, oxygen, H2S and CH4. At any time when a hazardous atmosphere is detected by the monitor, ENTRY WILL NOT BE ALLOWED UNTIL THE SITUATION IS CORRECTED.

DOWN HOLE WELDING/BURNING

- If welding and/or burning are taking place inside of the casing, a positive air supply shall be established utilizing a push/pull ventilation system.
- Proper permits and training shall be performed prior to beginning work.
- During the operation, if the employee leaves the interior of the casing for any reason, the leads shall be removed also.

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DOWN HOLE LIGHTING

• Adequate lighting will be provided for employees performing a down-hole entry.

CHANGING ATTACHMENTS

- Employees shall not access the attachment until the kelly bar is inserted into it. Employees shall stand clear of the attachment after removing the pin and before the kelly is removed.
- Pin removal and placement shall be done from the ladder. If this is not possible, alternate means shall be provided by the Superintendent.
- A ladder shall be utilized to access the attachment. A fellow employee shall hold the ladder during access and egress.
- Employees shall be aware of all pinch hazards associated with the changing of attachments.



Chains, Slings, Wire Ropes

Section 4

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Rigging Requirements - General

- A. Rigging equipment shall be inspected prior to use on each shift and as necessary during its use to ensure that it is safe. Defective rigging equipment shall be removed from service.
- B. Rigging equipment shall not be loaded in excess of its recommended safe working load.
- C. Rigging equipment when not in use should be removed from the immediate work area so as not to present a hazard to employees.
- D. Special custom design grabs, hooks, clamps or other lifting accessories for such units as modular panels, prefabricated structures and similar materials shall be marked to indicate the safe working loads and shall be proof tested prior to use for 125 percent of their rated load.

Chains, Shackles and Hooks

- A. The manufacturers recommended safe working loads for chains, shackles and hooks shall not be exceeded. If this information is not available, the shackle or hook should be tested to at least twice the intended working load before putting into use. Such test must be documented.
- B. Job or shop hooks and links or makeshift fasteners, formed from bolts, rebar, rods, etc. should not be used.

Slings

- A. Hoisting equipment shall always include slings or other lifting devices and must be kept in good condition.
- B. Wire rope slings must be inspected and lubricated frequently and regularly. Slings shall be stored on racks and protected from moisture.
- C. Blocks or heavy padding should be used at comers of the load to protect the sling from sharp bending.

Wire Rope

- A. All wire ropes must be inspected before being used. Any rope showing excessive wear, corrosion or rust or when any of the following conditions exist, shall be taken out of service:
 - 1. In running ropes, six randomly distributed broken wires in one lay or three broken wires in one strand in one lay.
 - 2. Wear of 1/3 the original diameter of outside individual wires. Kinking, crushing, bird-caging, or any other damage resulting in distortion of the rope structure.
 - Reductions from nominal diameter of more than 1/64 inch for diameters up to and including 5/16 inch, 1/32 inch for diameters 3/8 inch to and including 1/2 inch, 3/64 inch for diameters 9/16 inch to and including 3/4 inch, 1/16 inch for diameters 7/8 inch to 1-1/8 inches inclusive, 3/32 inch for diameters 1-1/4 to 1-1/2 inches inclusive.

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- 4. Evidence of any heat damage from any cause.
- 5. In standing ropes, more than two broken wires in one lay in sections beyond end connections or more than one broken wire at an end connection.
- B. Kinking and untwisting of the wire rope shall be carefully avoided. At no time shall a load be applied to a kinked rope.
- C. Wire ropes shall be lubricated with the lubricant recommended by the wire rope manufacturer.
- D. Wherever necessary, wire ropes shall be guarded to prevent persons or materials coming in contact with them.
- E. Friction of wire ropes with other objects causing chaffing or breaking of wires shall be prevented.
- F. Protruding ends of strands in splices on slings and bridles should be covered or blunted.
- G. The U-bolt of all wire rope clips must be applied on dead end of rope, never saddle a dead horse.
- H. The recommended number and spacing of wire clips is illustrated in the following table:

Improved plow steel, rope diameter	Drop Forged	Other Material	Min. Spacing (inches)
1/2	3	4	3
5/8	3	4	3-1/4
3/4	4	5	4-1/2
7/8	4	5	5-1/4
1	4	6	6
1-1/8	5	6	6-1/4
1-1/4	5	7	7-1/2
1-3/8	6	7	8-1/4
1-1/2	6	8	9

Number of clips

Chain Falls and Pull Lifts

- A. Chain falls and pull-lifts should be clearly marked to show the capacity and the capacity shall not be exceeded.
- B. Chain falls shall be regularly inspected to ensure that they are safe, particular attention being given to the lift chain, pinion, sheaves and hooks for distortion and wear. Pull-lifts shall be regularly inspected to ensure that they are safe, particular attention being given to the ratchet, pawl, chainand hooks for distortion and wear.
- C. Straps, shackles, and the beam or overhead structure to which a chain fall or pull-lift is secured shall be of adequate strength to support the weight of load plus gear. The upper hook shall be moussed or otherwise secured against coming free of its support.

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D. Scaffolding shall not be used as a point of attachment for lifting devices such as tackles, chain falls, and pull-lifts unless the scaffolding is specifically designed for that purpose.

Inspections

Sling Inspection Frequencies

- A. **Initial Inspection** The sling and its hooks, rings, links and attachments are to be inspected, load tested and certified by the manufacturer or a recognized agency or company.
- B. **Frequent Inspection** the rigger is to visually examine each sling and its hooks, rings, links and attachments before use for damage, evidence of deficiencies, which could lower the load rate of the sling, and presence of the current periodic inspection tag. Deficiencies, or lack of a current periodic inspection tag, will be cause to remove the sling from service and a periodic inspection to be performed.
- C. **Periodic Inspection** Each chain and wire rope sling and their hooks, rings, links and attachments are to be visually examined at least semi-annually and each fiber rope/synthetic web sling is to be inspected quarterly. The inspection is to be performed by a qualified individual for deficiencies which would lower the load rating of the sling. This inspection is to be performed on the entire length of the sling and on each of its components.
- D. Repair or Reconditioning Repair or reconditioning of the slings will be performed by qualified personnel using procedures recommended by the manufacturer and/or ANSI/ASME B30.9. Repaired or reconditioned slings will be proof tested as stated in ANSI/ASME B30.9 prior to being placed back into service.

Frequent Inspection Defect Characteristics

- 1. Alloy Steel Chain Slings
 - a) Wear, nicks, cracks, breaks, gouges, stretch bands, weld splatter, discoloration from excessivetemperature and evidence of opening of the hook throat.
 - b) Free movement between chain links and attachments.
 - c) Free movement and proper seating of hook latches.

2. Wire Rope Slings

- a) Distortion of rope such as kinking, crushing, un-stranding, bird caging, main strand displacement or core protrusion.
- b) Loss of rope diameter in short rope lengths or unevenness of outer strands.

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- c) General corrosion.
- d) Broken or cut strands.
- e) Number, distribution and type of broken wires.

3. Natural and Synthetic Fiber Rope Slings.

- a) Cuts, gouges and abrasions.
- b) Worn fibers or yarns. Filament or fiber breakage.
- c) Particles of debris or broken fibers between strands.
- d) Evidence of chemical agents and/or sunlight damage (discoloration, harshness, brittleness, etc.)
- e) Kinks or knots.
- f) Evidence of heat damage (melting or charring).
- g) Damaged fittings and/or attachments.

4. Synthetic Webbing Slings

- a) Acid or caustic bums
- b) Evidence of heat damage (melting or charring).
- c) Holes, tears, cuts or snags.
- d) Abrasive wear.
- e) Knots.
- f) Damaged fittings and/or attachments.

Periodic Inspection Defect Characteristics

1. Alloy Chain Slings

- a) Each link and each attachment will be individually visually examined for the characteristics stated in the OSHA Standard.
- b) Worn links will not exceed the following values as stated below or that are specified by the manufacturer.

Nominal Chain or Coupling Link Size Maximum Wear (Diameter)

9/32	3/32
3/8	5/64
1/2	7/64
5/8	9/64
3/4	5/32
7/8	11/64
1	3/16
1 1/4	1/4

c) Sharp transverse nicks and gouges can be rounded out by grinding and the sling used at its rated capacity, providing the depth of the grind does not exceed the above values.

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2. Wire Rope Slings

- a) The entire length of the sling and its splices, end attachments and fittings are to be visually examined for the characteristics stated in OSHA Standard.
- b) Evaluation of the sling and determination of its suitability for continued use depends on the judgment of the qualified individual inspecting the sling.
- c) The following conditions should be sufficient to remove the sling from service:
- d) For strand laid and single part slings, ten (10) randomly distributed broken wires in one (1) rope. Lay or five (5) broken wires in one (1) strand in one (1) rope lay.
- e) Severe localized abrasion or scraping.
- f) Kinking, crushing, bird caging or any other damage.
- g) Evidence of heat damage.
- h) Cracked, deformed or worn end attachments.
- i) Corrosion of the rope or end attachments.

Criteria for cable laid and braided slings:

Sling Body	Allowable Broken Wires Per Lay or One Braid	Allowable Broken Strands Per Sling Length
Less than 8 part braid	20	1
Cable Laid	20	1
8 Part or More	40	1

3. Synthetic Webbing Slings

- a) The entire length of the sling and its stitching, end attachments and fittings are to be visually examined for the characteristics stated in 26.7.C.4.
- b) Evaluation of the sling and the determination of its suitability for continued use depend on the judgment of the qualified individual inspecting the sling.
- c) Conditions such as the following should be sufficient reason to remove the sling from service:
 - Acid or caustic burns

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- Melting or charring of any part of the sling.
- Holes, tears, cuts or snags.
- Broken or worn stitching in load bearing splices.
- Excessive abrasive wear. Knots in any part of the sling.
- Excessive pitting or corrosion; or cracked, distorted or broken fittings.
- Other visible damage that causes doubt as to the strength of the sling. For example, colored threads exposed.

Hook Inspections

Refer to manufacturers' specifications on inspections for the number or percentage.

1. Inspection of hooks is to be performed in conjunction with the inspection of slings or the inspection of the hoist or crane. The documentation of this inspection will be as stated by the referenced procedures.

Inspection Defect Characteristics

- a) Hooks having any of the following deficiencies are to be removed from service unless a qualified person approves their continued use and initiates corrective action:
- b) Wear exceeding 10%, or as recommended by the manufacturer of the original sectional dimension.
- c) A bend or twist exceeding 10 degrees from the plane of the unbent hook. An increase in throat opening exceeding 15% or as recommended by the manufacturer.
- d) If a latch that is provided becomes inoperative because of wear or deformation, and is required for the service involved, it will be replaced or repaired before the hook is put back into service. If the latch fails to fully close the throat opening, the hook will be removed from service or moussed until repairs are made.
- e) If hooks are coated, visual inspection should take this coating into consideration. Surface variations can disclose evidence of heavy or severe service to require more detailed analysis. In such instances, the surface condition may then call for stripping the coating or nondestructive testing.

Inspection Documentation

A. Initial Inspection — this inspection is documented by the manufacturer's identification markings on the sling. Should the sling be job made, the project manager or his authorized designee will ensure that it is load tested per ANSI/ASME B30.9 and identified as "CCC, Job Number and Load Rating" before it is placed in service.

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B. Frequent Inspections — Documentation of frequent inspections is not required. The rigger will identify slings removed from service for suspected deficiencies with a conspicuous tag with wording such as "Warning, Removed From Service" printed on it. He will also remove the periodic inspection identification and cause the sling to be inspected. Removal of the warning tag is to be performed only by qualified inspection personnel.

Periodic Inspection

<u>Chain and Wire Rope Slings</u> — the periodic inspection will be documented by using colored tape or paint, placed near the hook end, with the colors stated below:

January through June	Red (or any color preference)
July through December	Brown (or any color preference)

<u>Fiber Rope and Synthetic Slings</u> — The periodic inspection will be documented and the slings marked by applying colored paint to the inside of the sling's loop eye using a color scheme such as the following:

January through March	White (or any color preference)
April through June	Green
July through September	Yellow
October through December	Blue

Tag Lines

Tag lines shall be used unless their use creates an unsafe condition.



Confined Space

Section 5

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Purpose

This Confined Space Entry Program is designed to prevent workers from exposure to dangerous atmospheres and conditions while working or occupying confined spaces while working for Drilling Service Company.

Definitions

- **Hazardous Atmosphere** An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit-required confined space), injury, or acute illness caused by one or more of the following:
 - □ Flammable gas, vapor, or mist in excess of 10% of its lower flammable limit (LFL).
 - $\hfill\square$ Airborne combustible dust at a concentration that meets or exceeds its LFL.
 - Atmospheric oxygen concentration below 19.5% or above 23.5%.
 - □ Atmospheric concentration of any substance which may exceed a permissible exposure limit.
- Oxygen Enriched Atmosphere An atmosphere containing more than 23.5% oxygen by volume
- Oxygen Deficient Atmosphere An atmosphere containing less than 19.5% oxygen by volume
- **Engulfment** The surrounding capture of a person by a liquid or finely divided (flow able) solid substance that can be inhaled to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.
- Acceptable Entry Conditions The conditions that must exist in a confined space to allow safe entry and work conditions.

Roles and Responsibilities

It is the supervisor's responsibility to determine if a confined space exists at their particular jobsite. If a confined space is thought to exist at that jobsite, the supervisor shall evaluate the hazard with the safety coordinator to determine if confined space entry precautions should be implemented. If it is determined that a non-permit required confined space or permit-required confined space exists at the jobsite, that supervisor shall follow and implement the procedures as outlined in this program.

Confined Space

A "confined space" means a space that:

- 1. Is large enough and so configured that an employee can enter their body and perform assigned work;
- 2. Has limited or restricted means for entry or exit (tanks, large pipes and storage bins); and
- 3. Is not designed for continuous employee occupancy.

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"Confined Space Entry" means the action by which a person passes through an opening into a permitrequired confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

An assessment must be made to determine if any spaces within the workplace are permit-required confined spaces (see definition below). If the workplace contains permit spaces, danger signs warning of the existence and location must be posted. All spaces shall be considered permit-required confined spaces until pre-entry procedures demonstrate otherwise. When the assessment determines there is a permit required confined space on the jobsite, there shall be no entry into that space.

Non-Permit Required Confined Space

A "non-permit required confined space" means a confined space that meets ALL of the following criteria:

- 1. The confined space doesn't contain an actual or potential hazardous atmosphere,
- 2. The confined space doesn't contain hazards capable of causing death or serious physical harm. This includes any recognized health or safety hazards including engulfment in solid or liquid material, electrical shock, or moving parts.
- 3. If you must enter to remove any hazards, the space must be treated as a permit-required confined space and you must follow section 4.1 of this document until all hazards are eliminated.

Non-Permit Required Confined Space Entry Procedures

- A. If there is an entrance cover and it needs to be removed, promptly guard the opening with a railing, temporary cover, or other temporary barrier to prevent accidental falls through the opening and protect entrants from objects falling into the space.
- B. When there are changes in the use or configuration of a confined space that might increase the hazards of the entrants, the space should be re-evaluated and reclassified if necessary.
- C. The atmosphere should be periodically re-tested to ensure that it continually remains safe. At no time can the space have an actual or potential for a hazardous atmosphere.
- D. If an unforeseen hazardous atmosphere is detected at any time during an entry, the entrants must immediately evacuate the space. The space must then be re-evaluated to determine how the hazardous atmosphere developed and appropriate action taken to protect employees before any subsequent entry takes place. A permit must be re-issued before entrants re-enter the space and the space must be re-classified if necessary.

Be sure to pay close attention to vehicle or equipment exhaust as it should not enter the space.

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Description of Participant Duties

Duties of Authorized Entrants

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and the consequences of the exposure.
- Alert the attendant whenever: the entrant recognizes any warning sign or symptom of exposure to a dangerous situation; and
- Exit from the space as quickly as possible whenever an order to evacuate is given by the attendant or the entry supervisor or the entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
- Signs the permit prior to entering the space and upon completion of the work when leaving the space
- Remains in direct communication with the attendant outside the confined space
- Attends pre-entry safety meeting
- Attends and participates in the pre-entry safety meeting covering requirements and procedures
- Attends and participates in all required training protocols

Supervisor Responsibilities

- To assure adequate protection is provided to the entrants by verifying adequate lockout/tagout and that all hazards are securely isolated.
- To support the attendant's authority in controlling access to a confined space.
- To verify that all personnel have exited prior to closing the space.
- To assure that all personnel involved are aware of the hazards associated with the space.
- To assure that rescue services are available prior to entry.

Duties of the Attendants

- Remain outside the permit space during entry operations until relieved by another attendant;
- Continuously maintain an accurate count of authorized entrants in the permit space;
- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and the consequences of the exposure;
- Be aware of possible behavioral effects of hazard exposure in authorized entrants;

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- Communicate with authorized entrants as necessary to monitor entrant's status and to alert entrants of the need to evacuate the space; and
- Performs no duties that might interfere with monitoring and protecting the entrants.
- Monitor activities inside and outside the space to determine if it is safe for entrant's to remain in the space and order the authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - If you detect a prohibited condition;
 - If you detect the behavioral effects of hazard exposure in an authorized entrant; or
 - If you detect a situation outside the space that could endanger the authorized entrants.
 - Summon rescue and emergency services as soon as you determine that authorized entrants may need assistance to escape from the permit space hazards.
 - Rescue services will be provided by host facility.
 - Do not perform any duties that might interfere with your primary duty to monitor and protect the authorized entrants.
- Attends and participates in the pre-entry safety meeting covering requirements and procedures
- A single attendant will not be allowed to monitor multiple spaces during an emergency.
- Attends and participates in all required training protocols
 - Must be trained in first-aid and CPR

Other

Multi-employer entries are not allowed on Drilling Service Company projects.

Training

Training must be given to each employee who has access or potential access to a confined space. The amount and type of training needed will depend on the individual's duty assignment. All training must be completed prior to initial assignment. For example, some employees may only be required to know the existence, location, and danger posed by a confined space.

Others would need training as it pertains to the type of entry procedures used (i.e., alternate entry procedures or reclassifying to non-permit space procedures). The overall intent of this training is to give employees the understanding, knowledge, and skills necessary for the safe performance of their assigned duties in relation to the confined spaces of concern.

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Training rosters will be kept at main office for recordkeeping purposes with most recent training rosters included in safety manual and will be reviewed on an annual basis with appropriate revisions to be implemented when necessary.

Permit-space program will be reviewed annually using cancelled permits from previous year's entries and will be revised as necessary.

Rescue Personnel

Drilling Service requires rescue services are to be provided by the host facility.

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Electrical Safety

Section 6

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ELECTRICAL SAFETY

Introduction

The risk of electrocution is generally limited to equipment maintenance or the use of faulty devices. Drilling Service Company has made every effort to ensure that all power terminals meet the highest standards of safety and reliability. At all construction sites, GFCIs, Ground Fault Circuit Interrupters, are required to be used with all temporary power sources.

Accountability

- Employees must ensure that all electrical power supplies meet the minimum safe standards detailed in this manual.
- Drilling Service employees are prohibited from working on energized electrical circuits.
- Employees will treat all exposed electrical services as though they are live.
- All employees will be trained on lockout/tagout procedures/policies and are expected to abide by the terms set forth in the Lockout/Tagout Program (Section 23.0).
- A minimum clearance of 10 feet from any energized overhead line shall be maintained at all times (includes vehicular and mechanical equipment).
- The lines shall be de-energized and grounded or other protective measures shall be provided before work is started.

Electrical Panels

All electrical panels in the shop must meet the following criteria:

- 1. Panels must be clearly marked, indicating power and service.
- 2. Panels may not have any signs of burns or damage to the interior or exterior.
- 3. Panels must have no missing breakers or covers on any breaker ports
- 4. Panels must be marked indicating "Do Not Block or Cover" in English.
- 5. Panels must have a 3' clearance maintained at all times.

Wall Outlets

All electrical outlets in the shop must meet the following criteria:

- 1. Outlets may not have any signs of burns or damage to the interior or exterior.
- 2. The face plate may not be broken or damaged in any way.
- 3. Outlets in the shop must be GFI type for all locations.
- 4. Outlets in kitchen areas or next to water supplies shall have GFI circuits.
- 5. Power Strips must be approved for use in industrial locations.

Lights

- 1. Task lights may be provided as needed at the discretion of the shop foreman.
- 2. All broken or dim lights must be reported to the Shop Foreman immediately.
- 3. Employees may not enter spaces containing exposed parts unless adequate illumination is provided.

Extension Cords

- 1. Shall be inspected regularly for wear and damage.
- 2. Shall not be used as a substitute for permanent wiring.

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- 3. Should not be plugged together to make a longer cord. Use in one continuous length.
- 4. Never pull a cord to disconnect; remove it by the plug.
- 5. Do not place cords under rugs, strung through doorways, windows, walls, or ceilings.
- 6. Damaged cords must be removed from service and repaired or destroyed immediately.
- 7. Use only approved cords outdoors. The word **"outdoor"** or the letters **"WA"** on the sheath.

Ladders

Drilling Service Company's ladders shall have non-conductive side-rails.

Repairs

All repairs to electrical systems or components will be conducted by a licensed electrician and or their designee. No **Drilling Service Company** employee is authorized to work on equipment or wiring or electrical components unless they are qualified to perform the work and have received direction from their Supervisor.

Training

- Employees who face risk of electrical shock who are not qualified shall be trained and familiar with electrically-related safety practices.
- Employees shall be trained in safety-related work practices that pertain to their respective job assignments.

Other

Safe work practices shall be employed to prevent electrical shock or other injuries resulting from either direct or indirect electrical contact.

Conductive items of jewelry or clothing shall not be worn unless they are rendered non-conductive by covering, wrapping or other insulating means.

When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person may not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in Table below.

Voltage Range (phase to phase)	Minimum Approach Distance
300V and Less	Avoid Contact
Over 300V, not over 750V	1 ft. 0 in. (30.5 cm)
Over 750V, not over 2kV	1 ft. 6 in. (45 cm)
Over 2kV, not over 15kV	2 ft. 0 in. (61 cm)
Over 15kV, not over 37kV	3 ft. 0 in. (91 cm)
Over 37kV, not over 87.5kV	3 ft. 6 in. (107 cm)
Over 87.5kV, not over 121kV	4 ft. 0 in. (122 cm)
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm)

Protective Shields

Protective shields, protective barriers or insulating materials as necessary shall be provided.



Emergency Action Plan

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EMERGENCY ACTION PLAN

Purpose

This plan is to protect all employees of Drilling Service Company in the event of an emergency and to be prepared to handle these emergencies in an efficient manner. The responsibilities include providing for the safety of personnel, preserving facilities and equipment, protecting the public from on-site incidents that affect the health and safety of the community, and contributing to overall community emergency preparedness.

Evacuation Procedures

The evacuation procedures are specific for each section of each building. Every employee shall be made aware of evacuation procedures specific to each location. Employees working at off-site locations shall familiarize themselves with the site specific Evacuation plans at their location and follow those instructions in an emergency.

Evacuation maps (Drilling Service Company Facilities) shall be strategically placed for easy references. These maps shall contain fire extinguishers locations as well as exit locations.

When an evacuation of a work area is called, the following procedures will be adhered to:

- 1. All employees will stop what they are doing.
- 2. Shut down all equipment (only if the employee is not in any immediate danger)
- 3. The employee will then follow the exit route established for the area in which he/she is working to evacuate the facility and go to the designated assembly area.
- 4. Employees must be accounted for and must check in with their supervisor to ensure all Drilling Service Company personnel are accounted for.

Communications

A method of communications is needed to alert employees to the evacuation or to take other action as required in the plan. Alarms should be audible or seen by all people in the locations. The alarm should be distinctive and recognizable as signal to evacuate the work area or perform actions designated under emergency action plans.

Accounting for Personnel

The person in command will need to know all personnel have been accounted for. All supervisors are required to account for their personnel.

Rescue and Medical Duties for employees

In the event of a medical emergency, employees are directed to contact emergency medical services by dialing 9-1-1 immediately.

Employees are not required to perform any rescue or medical duties, however employees trained in first aid and CPR may render care appropriate to their level of training only! At no time should an employee be directed to perform emergency duties, which may endanger his/ her life.

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EMERGENCY ACTION PLAN (FIELD)

Drilling Service Company has developed the following Emergency Action Plan (EAP) to be followed and implemented by Drilling Service employees when working in the field.

The EAP has been designed to address, in detail, the following areas:

- 1) Program Implementation and Responsible Person
- 2) Superintendents Responsibilities
- 3) Emergency Posting Notice
- 4) First Aid / Emergency Medical Services
- 5) Alarm System
- 6) Designated Employees Training Procedures
- 7) Employee Notification and Training
- 8) Emergency Escape and Evacuation Procedures
- 9) Multi-Employer Job Site Exposures
- 10) Crisis Response Procedures
- 1) Program Implementation and Responsible Person

Mark Murphy, president of Drilling Service Company is responsible for overseeing the implementation and maintenance of the EAP. Full authority is granted to the appropriate individuals to properly manage and enforce all provisions of this policy.

2) Superintendents Responsibilities

Supervisors are responsible for maintaining compliance with the Emergency Action Plan, and establishing procedures that are job site specific. A copy of this program is provided to each Superintendent for his or her reference.

- At specific job sites, lead employees be responsible for the following functions:
- Identifying and documenting appropriate evacuation routes and safe location for employees to assemble
- o Designating employee(s) to assist with Crisis Response and Emergency Evacuation procedures
- o Providing notification and training to employees
- o Coordinating continued enforcement of the EAP with Management
- Monitoring inventory of First Aid Kit contents at job sites

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3) Emergency Posting Notice

A posting notice will be displayed at all job sites, which will identify the following:

- o Identity of the Site Supervisor and After Hours Contact Information
- o Name, address and directions to job site
- Fire & Rescue Phone Number
- Police Department Phone Number
- o Ambulance Phone Number
- Nearest Hospital Phone Number
- Nearest OSHA Office Phone Number, and
- Map of job site that identifies the location of the area to assemble in the event of an emergency requiring evacuation
- 4) First Aid / Emergency Medical Services

Outside services will be the primary source of Emergency Medical Treatment (i.e., ambulance, medics, and fire department).

First Aid Kits will be maintained and accessible at all job sites. Contents of the First Aid Kit will adhere to requirements consistent with the number of employees working at the job site, and will be kept in a weatherproof container. The Supervisor will be responsible for performing weekly inventory checks to make sure used contents are replaced.

Supervisors will ensure that a suitable number of employees are certified to provide First Aid / Emergency Medical Services. This training will be coordinated with the management.

Only certified employees will be allowed to perform First Aid / Emergency Medical Services. Action taken will only be to the extent deemed necessary to preserve life.

5) Alarm System

In the event of an emergency requiring evacuation of all employees, several warning systems may be utilized, depending on the work site conditions or emergency involved, including:

- Verbal Communication
- Vehicle Horn
- Air Horns

The Supervisor, or designated employee, will be responsible for sounding the alarm and locating any hearing- impaired employees to ensure proper evacuation.

6) Designated Employees – Training Procedures

Supervisors will be responsible for the job site coordination of the EAP and assignment of tasks to designated employee(s) that will assist with emergency procedures.

Designated employees will be provided with the proper training to assist with the following functions:

- First Aid / Emergency Medical Services
- o Fire Suppression

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- Crisis Response Procedures
- Evacuation Procedures

No employee will be permitted to perform any action that might endanger his/her life or the life of others.

7) Employee Notification and Training

All employees, permanent and intermittent, to include managers and supervisors will be provided necessary training on all elements of the EAP. Employee notification and training will occur when:

- Work begins at a new job site (Group Training)
- A new hire is assigned to a specific job site (Individual Training)
- o An employee is transferred to a new job site (Individual Training)
- o All training will be documented in accordance with the company safety and health policy.
- Emergency Posting Notices will be displayed at all job sites
- 8) Employee notification and training relevant to the EAP will consist of:
 - o Employees right to review the EAP policy
 - Location of Emergency Posting Notice (Safety Bulletin Board or area designated by Field Supervisor)
 - o Procedures implemented for Crisis Response
 - o Identity of the Alarm System (sound) that will be used to trigger an evacuation
 - o Location of exit routes and designated location for employee to assemble
 - o First Aid and Emergency Medical Services available to

employees

When an evacuation occurs:

- o Employees must proceed directly to the designated assembly area
- o Employees are not to stop and pick up personal belongings when exiting the job site/structure
- Employees are not to block areas that would be considered access for emergency vehicles
- Employees will not be allowed to re-enter the job site/structure without clear indication that it is safe
- o Employees cannot leave the job site (assembly area) unless advised to do so by a designated
- employee or Supervisor
- Employees will be instructed not to respond to news media. Contact with the media is limited to designated Supervisors or Management

The most important focus of an emergency is the protection of human life.

9) Emergency Escape and Evacuation Procedures

Supervisors will be responsible for evaluating new job sites in order to identify emergency evacuation routes and a safe location for employees to assemble. This information will be documented and posted on the safety bulletin board or other area at Supervisor's discretion.

Identified exit routes will be checked periodically to ensure they remain unobstructed.

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The following tasks will be carried out in the event of an emergency requiring evacuation:

- The Supervisor, or designated, employee will sound the evacuation alarm
- The Supervisor will instruct a designated employee to contact the necessary emergency facilities and Management, <u>and proceed to the identified assembly area to perform the necessary head-count</u>
- The Supervisor and designated employee(s) will be responsible for making sure the job site/ structure is clear of all employees that have not been assigned with specific duties to assist with the evacuation

10) Multi-Employer Job Site Exposures

Other contractors/employers that have a contractual obligation to Drilling Service Company are required by contract to be in compliance with OSHA regulations. Every attempt will be made to ensure that all exposed employees are evacuated in the event of an emergency.

11) Crisis Response Procedures

11. a Fire and Explosion

All employees will be trained on how to properly use fire suppression equipment All employees will be instructed on the following:

Assess the situation:

- Any employee discovering a fire should quickly and carefully remove any person who is injured
- Or in immediate danger, unless doing so will create the possibility of personal injury
- Employees in the immediate vicinity of the fire, as well as those in surrounding areas, who may be threatened by the fire, must be notified of the existence of the fire
- Only properly trained and authorized employees may attempt to extinguish a small fire, which does not involve electrical components or hazardous substance.
- If the fire appears to be too large, involves toxic substances, or is electrical based, all
 employees are to leave the area immediately and notify management

When the fire cannot be extinguished using a portable fire extinguisher:

- The employee will initiate the evacuation procedures
- The fire will be reported to the appropriate agency(s)
- The emergency evacuation alarm will be sounded
- Without creating exposure to personal injury, attempts should be made to contain the fire, by properly trained and designated employees only (i.e. closing doors and windows in the immediate vicinity and removing any flammable materials.

11. b Earthquake

All employees will be instructed to:

- Move away from windows, temporary walls, partitions, freestanding and heavy objects
- Duck or drop down to the ground

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- Attempt to take cover under fixed objects, or interior framing, that may provide safety from falling objects
- Avoid being near any electrical units, flammable or combustible materials
- STAY PUT until the ground / structure stops shaking and it is safe to move

11. c Natural Disasters

Including, but not limited to, Floods, Tornadoes, and Severe Thunderstorms

Most natural disasters are usually forecast sufficiently in advance for emergency action to be initiated before the exposure becomes serious.

In most cases, advising employees of the approaching danger and seeing to it that they are in a safe location will be sufficient, should the incident occur during normal working hours.

11. d Leak, Spill or Chemical Release

The following procedures will be carried out in the event of a hazardous substance

spill: All employees will be instructed to:

- Notify the Supervisor or designated employee immediately
- All employees, not trained to deal with the exposure, will be instructed to leave the immediate area

The Supervisor and/or designated employee(s) will:

- Determine the nature and source of the spill/release. SDS will be used to determine the characteristics of the material and identify necessary precautions for dealing with the material
- Depending on the classification and amount of the spill, if warranted, the local fire department and appropriate local environmental agency will be notified
- Clean-up procedures will be performed by qualified personnel

11. e Bomb Threat

If a bomb threat is received, the following procedures will be carried

out: All employees will be instructed to:

• Notify the lead employee immediately

The Supervisor and/or designated employee(s) will:

- Notify the Police and Fire Department
- The emergency evacuation procedure will be initiated, unless the threat includes instructions not to do so (proper law/emergency enforcement agencies should determine proper course of action in this situation)
- The individual who received the threat should be instructed to document every word of the conversation immediately, if applicable
- A search of the building will be performed by the appropriate law enforcement personnel only

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 Access to the building/job site will not be permitted until clearance is given by the appropriate personnel (i.e. police, fire department)

11. F Civil Disturbance

Civil disorders, usually in the form of large unruly crowds, can interfere with business operations and could cause damage to property and employees.

The Supervisor or designated employee will notify the appropriate authorities for assistance. Steps will be taken to assure the safety of all employees, business property and equipment, without creating exposure to personal injury.



Employee Responsibilities

Section 8

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EMPLOYEE RESPONSIBILITIES

- 1. Report all on the job injuries and illnesses to your supervisor promptly no matter how serious.
- 2. Report all equipment damage to your supervisor immediately.
- 3. Report all near misses to your supervisor immediately.
- 4. Don't take chances use your safety equipment as directed.
- 5. Follow instructions ask questions of your supervisor when in doubt about any phase of your operation.
- 6. Observe and comply with all safety signs and regulations.
- 7. Report all unsafe conditions or situations that are potentially hazardous.
- 8. Encourage co-workers by your words and example to use safe work practices on the job.
- 9. Only operate equipment you are qualified to operate. When in doubt, ask for directions.
- 10. Talk to management immediately about problems that affect your safety or work conditions.
- 11. Study and follow all safe practices that apply to your work.
- 12. Coordinate and cooperate with all other employees in the workplace to try and eliminate on the job injuries and illnesses.
- 13. Apply the principles of accident prevention in your daily work and use proper safety devices and protective equipment.
- 14. Take proper care of and use all needed and assigned personal protective equipment (PPE).

The most important part of this program is the individual employee – You! Without your cooperation, the most stringent safety and health program can be ineffective. Protect yourself and your fellow workers by following the rules. Remember: Work safely so you can go home to your family and friends – they need you.

THINK BEFORE YOU ACT! DON'T TAKE SHORTCUTS – PUT SAFETY FIRST!



Ergonomics

Section 9

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ERGONOMICS

Ergonomics focuses on how your work affects your physical well-being. It is the science of matching the job to the worker to improve efficiency and to reduce the risk of discomfort or injury. Ergonomic changes can include restructuring or changing the work environment or modifying a task by using tools or different procedures. In the area of materials handling, ergonomic interventions can include training in back safety, reducing the weight of objects lifted, using mechanical lifting devices, or changing the height of a pallet or shelf.

The goal of ergonomics is to reduce your exposure to work hazards. A hazard is defined as a physical factor within your work environment that can harm your body. Ergonomic hazards include working in awkward or uncomfortable postures and using excessive force or high repetition.

WORK SMARTER, NOT HARDER

Many jobs require you to work in awkward postures or to use repetitive or prolonged force. The risk of injury increases with exposure to hazards, combined with longer exposure times and insufficient rest or recovery time.

Your Mother Was Right, Posture IS Important

An awkward posture occurs when a joint is held in a "non-neutral" position at the extreme ends of its range of motion. A joint becomes weaker as it is moved away from its mid-point. Awkward postures place the muscles out of balance, make tasks more physically demanding, and add stress to the body.



Figure 3.1 - Posture

An example of an awkward posture is when the wrist is bent up and down at the extreme ends of its range of motion. See Figure 3.1.

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Awkward postures can occur in shops when doing bench work, especially if tools and materials are placed outside of the "power zone". The power zone is close to the body, between mid-thigh and mid-chest height. Comparable to the strike zone in baseball, this zone is where the arms and back can lift the most with the least amount of effort. The risks associated with lifting and carrying are magnified when items must be retrieved or placed outside of the power zone. Examples of specific high risk postures can be found in Table 3.1.



Table 3.1 – High-risk Postures

Working with hands above the head, or with the elbows above the shoulders for prolonged periods without frequent breaks
Working with the neck bent more than 45° without support or frequent posture changes for prolonged periods
Working with the back bent forward without support or frequent posture changes
Squatting or kneeling to work repetitively or for prolonged periods
Working outside of the power zone.

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Try to work in neutral postures close to the mid-range of joints. Neutral postures produce the most work with the least amount of effort. Muscles and tendons are balanced and risk of injury is reduced.

Avoid Forceful Exertions

Force is defined as exerting effort to accomplish something. Shop work involves various types of force, including high hand forces, contact pressure, and high force associated with lifting and carrying tasks. Table 3.2 depicts examples of high hand force that occur when using tools.



Table 3.2 – High Hand Forces



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Another type of force that can cause injury is contact pressure. Contact pressure occurs when a body part that is not protected by muscle or padding is compressed against a hard surface or sharp edge. Prolonged compression on a padded surface can also result in contact pressure. An example of this activity is kneeling to work using knee pads or a floor mat. Examples of contact pressure are in Table 3.3.

Table 3.3 – Contact Pressure

Using the hand (heel/base of palm) as a hammer more than once per minute.
Using the knee as a hammer more than once per minute or kneeling for prolonged periods on knee pads or a mat.

More is NOT Always Better

Doing too much will not only make you tired, but it can also wear you out! Highly repetitive tasks can put you at high risk of discomfort or injury. The risk of injury is even greater when you work in awkward postures.

High repetition tasks commonly seen in shops include:

- Use of hand tools such as saws, hammers, screwdrivers, and wrenches
- Hand sanding or grinding



Too little movement can also be as harmful as too much movement. Prolonged or sustained postures occur when we do not move. Discomfort and fatigue can result from holding tensed muscles in fixed positions for long periods. The risk of injury increases if you hold fixed positions in awkward postures. An example of an awkward and prolonged posture is bending over to caulk or drill without changing tasks for long periods of time.



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LIFTING AND CARRYING

Many lifting injuries can be prevented by reducing the weight and number of lifts as much as possible, and by learning how to use appropriate lifting techniques when it is necessary to lift and carry objects.

Using proper lifting techniques can save you a great deal of pain and misery when you must lift or move objects by hand. Use forklifts, hoists, carts, dollies, and other types of lifting equipment when you have to lift or move heavy or bulky objects.

Before lifting an object, assess the situation by asking yourself the following questions:

- Can you lift this load safely, or is it a two-person lift?
- How far will you have to carry the load?
- Is the path clear of clutter, cords, slippery areas, overhangs, stairs, curbs or uneven surfaces?
- Will you encounter closed doors that need to be opened?
- Once the load is lifted, will it block your view?
- Can the load be broken down into smaller parts?
- Would gloves improve your grip or protect your hands?



Size up the load

- Test the weight by lifting one of the corners. Stop lifting if it is too heavy or difficult to handle.
- Consider asking for help from fellow workers.
- Break down the load into smaller parts.
- Use a mechanical lift or a hand truck.



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The Art of Lifting

There is really no single "right way" to lift. However, there are more and less demanding ways to lift. The key to working safely is to figure out how to lift in the least demanding way possible.

Here are some guidelines to reduce risk of injury when lifting.

Keep It Close and Keep the Curves! The closer a load is kept to your power zone, the easier it is to keep the natural curves of your back. The vertebra, discs, ligaments and muscles are in their strongest and most supportive position when the natural curvature of the spine is maintained.



Staggered Stance. Lifting with the feet close together and in line with each other makes it more difficult for you to use your legs to help with the lift. Staggering your stance encourages the legs to become involved and reduces the demands on your back. Simply stepping toward a load (with a staggered stance) moves the center of gravity closer to the load and minimizes the demands of the lift. If you feel

your weight shifting forward onto your forward leg, you know you have successfully transferred this weight demand from your back to your stronger legs.

Build a Bridge. In most cases, the demands of any lift are determined by the position of a person's upper body during the lift. Many people lift by bending over at the waist and leaving their upper body hanging like a "one-sided bridge". This places all the demands of the lift onto the lower back and increases the risk of injury. This can be avoided by "building a bridge" to support the weight of the upper body. To do this, place an arm on your leg or a nearby stationary object. If you need both of your arms to manage the object you are lifting, step forward toward the load with one leg and create a "bridge" with your legs to reduce the workload on your back.



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Feet First. Moving your feet first gets you closer to the load and reduces the amount you have to reach. The farther you reach, the more you have to lift your upper body as well as the load. Moving your feet first also helps reduce the risk of twisting while you lift.

Prepare and Compensate



Let Your Body Breathe. Lifting and carrying loads can be hard work. Like athletes, workers can avoid injuries or discomfort by preparing the body for work. Muscles are more flexible and less prone to injury when they are warm and full of oxygen. Stretching and moving around prior to work helps pump blood into your muscles. Blood warms up muscles and brings in oxygen, allowing your muscles to "breathe". This can be particularly effective at the beginning of the workday, after breaks, or if you work in cold environments.

Compensating for work demands simply means letting the body recover from work in an efficient manner. Performing periodic stretches can minimize accumulation of fatigue throughout the day. Stretches can "apologize" to the body for working it so hard.

Use Mechanical Lifting Devices Whenever Possible

The best way to avoid a back injury is to reduce the number of lifts you carry out as much as possible. Hand trucks, pushcarts, and forklifts are great engineering controls that reduce your exposure to lifting hazards. If you use a forklift, make sure you have received the appropriate training and are authorized to operate one.

Hand Trucks and Carts – Helpful Tips

- 1. Push rather than pull. It is easier and safer to push than to pull. You can use your body weight to assist when pushing, and you can see where you are going. You are also less likely to twist when pushing.
- 2. Keep close and lock your arms. Stay close to the load, try not to lean over, and maintain the curves of your back when pushing or pulling.
- 3. Use both hands. Carts are easier to push and control using both hands.



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- 4. If necessary, use tie-downs to secure the load.
- 5. Use powered carts when available.

SETTING UP A SAFE WORK ENVIRONMENT

Avoiding exposure to work hazards such as awkward postures, repetition and high forces is the best way to avoid discomfort and injury. Here are some ways that you can set up a safe work environment.

Tool Design

Shop workers use many different tools to complete work tasks. The design of the tool can affect your working posture and the force and repetition you are exposed to while working. To reduce your risk exposure, use Table 3.4 to match your tool selection to the task you must complete.



Table 3.4 – Tool Selection

For tasks requiring a POWER GRIP		
SINGLE-HANDLE TOOLS	DOUBLE-HANDLE TOOL	
0	لین Open Grip Span = <3 ½"	E Cas Stock Prode- cap Marson
Handle Diameter= 1¼" to 2"		Closed Grip Span = >2"
For tasks requiring PRECISION		
SINGLE-HANDLE TOOLS	DOUBLE-HANDLE TOOLS	
Handle Diameter= ¼" to ½"		Open Grip Span = <3" Closed Grip Span = >1"

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Guidelines for Tool Selection

Keep the following guidelines in mind when selecting tools:

- Select tools with smooth, non-slippery, padded handles.
- Avoid tools with finger grooves, hard plastic handles, sharp edges, small or large diameter handles.
- Use grips or tape to build up small diameter tools, especially if you need to use them with a power grip. Better still, select tools with larger diameter handles (1¼"-2") and soft grips.
- Use longer handle tools (screwdrivers, wrenches) for better leverage.
- Use vises, clamps, or jigs to stabilize objects to avoid prolonged forceful gripping with the hand.
- Avoid gripping or pinching with your wrist in awkward positions. Take frequent breaks to stretch and rest hands.
- Alternate activities frequently throughout the day. Rotate heavy and/or repetitive tasks with lighter, less repetitive tasks.

Task Modification

The way you complete your work tasks can influence your level of fatigue and your exposure to risk. The following suggestions can help you work more efficiently and comfortably:

- Use two hands to lift rather than one, even with light objects and tasks.
- Slide or push and pull objects instead of lifting.
- Avoid jerky movements when lifting objects.
- Use power devices when available.
- Keep reaching to a minimum. Position objects close to the body within easy reach.
- Use a step stool or ladder when necessary to reach above shoulder level, or to lift objects overhead.
- Alternate tasks throughout the day. Rotate heavy and/or repetitive task with lighter, less repetitive tasks.

The Neutral Reach Zone





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ERGONOMICS CHECKLIST

The following checklist will assist you in reducing the risk factors associated with MSD's:

- Hands or wrists do not rest or contact sharp edges.
- o Steps have been taken to eliminate or reduce tool vibrations.
- The workers hands are kept at or above room temperature (70 degrees F).
- Wherever practical, gloves are not used.
- Tools and containers are adapted to eliminate the need for pinch grip.
- The preferred power grip is used.
- Containers, parts, tools, etc. are designed to require the minimum amount of force (10 lbs. or less).
- The worker or job has been positioned to prevent the need for the wrist to be bent or twisted while performing the work.
- Tools are designed to prevent the need to bend or twist the wrist.
- Power tools or ratchet devices are used to prevent the need for workers to repeatedly twist the wrist.
- The work or work surface is between shoulder and waist height.
- The work or work surface can be adjusted to the worker to maintain a neutral position.
- Tools are less than 10 lbs.
- Tools greater than 10 lbs. are suspended or holstered.
- Tool handles are non-metal or covered/non conductive
- o Tool handles are non-porous
- o Tool handles are slip-resistant
- The span for all tool handles is between 2-23/4 inches.

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- Tool handles are longer than the width of the hand (avg. hand=4 inches).
- The diameter of tool handles is 1.25-1.75 inches.
- Workers are seated especially for precision work. Large heavy tasks usually require standing.
- Cycle time is longer than 30 seconds. (Use caution with this figure. Repeated movements in the cycle should not be more than 50% of the total cycle.)
- Chairs have back rests which provide support but allow movement of the hips.



Excavations and Trenching

Section 10

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Purpose

The purpose of this program is to protect all of Drilling Service Company's employees that are exposed to hazards associated with excavation and trenching activities.

Policy

When Drilling Service Company is performing excavation or trenching activities, our designated competent person* will be responsible for classifying solid type as well as performing daily inspections.

Specific Requirements

- 1. CALL BEFORE YOU DIG! Prior to opening an excavation, the exact location of underground utilities shall be determined. Call the local centralized utility agency before you dig or drill.
- 2. Excavations exceeding 20 feet in depth must have protective systems designed by a registered professional engineer.
- 3. Benching/Sloping: All excavations and trenches 4 feet or deeper shall be sloped or benched wide enough to achieve stable band conditions according to the following ratios (Horizontal: Vertical):
 - a. Type C soil, at least 1-1/2 : 1
 - b. Type B soil, at least 1 : 1
 - c. Type A soil, at least 3/4 : 1
 - d. Or, if it is not possible to cut back to the angles prescribed, all trenches 5 feet or more in depth shall be shored or shielded.
 - e. Unclassified soils must be sloped or benched at least 1-1/2 : 1.
 - f. For instructions on how to classify soil, refer to Appendix A, Soil Classification, of Subpart P Excavations, 29 CFR 1926, 650-652.
- 4. **Inspections:** No employees shall enter an excavation until it has been inspected by a competent person* and declared safe to enter. Excavations shall be inspected daily (Use Excavation Checklist Form) before employees are allowed to enter and after every rainstorm or other hazard-causing occurrence.

*Competent Person Definition: Means one who is capable of identifying existing and predictable hazards in the surrounds, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

5. Access/Egress: A stairway, ladder, ramp or other safe means of egress shall be located in excavations that are 4' or more in depth so as to allow no more than 25' of lateral travel for employees. Earthen ramps shall be sloped so that employees do not have to climb on hands and feet when accessing or egressing an excavation trench.



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- 6. **Loose Debris:** Spoil piles, loose rock and soil, tools and other debris shall be kept at least 2' back from excavation edges, secured or removed to prevent it from falling into excavation where it could cause injuries.
- 7. Vehicular Traffic: All employees working near traffic shall wear vests or garments made of or marked with reflective or high visibility material.
- 8. **Fall Loads:** No employee shall be permitted beneath a load handled by loading or digging equipment, and operators remaining in their vehicles must have adequate canopy protection.
- 9. **Fall Protection:** Trenches which are not readily visible will be protected by barricades, covers or other suitable means. Also, where ramps or walkways are utilized to cross over excavations and a fall hazard of 6 feet or more exists, guardrails or some other form of fall protection will be provided.
- 10. Hazardous Atmosphere: When it is expected or reasonably predictable to expect that a hazardous atmosphere exists, or an atmosphere containing less than 19.5% oxygen, precautions necessary to ensure employee safety will be taken. ABSOLUTELY NO DRILLING SERVICE EMPLOYEE IS ALLOWED TO ENTER OR REMAIN IN AN AREA THAT HAS UNSAFE ATMOSPHERE CONDITIONS.
- 11. Water Accumulation: Employees will not be permitted to work in excavations where water is accumulating. The designated competent person must determine what safeguards will be taken to protect against the hazards of water accumulation.
- 12. **Mechanical Equipment:** When mechanical equipment is operated adjacent to an excavation and the operator does not have a clear view of the edge barricades, stop logs or someone providing signals will be utilized.
- 13. **Surface Encumbrances:** Sidewalks, trees, and other miscellaneous surface encumbrances who stability may be weakened by excavation operations should be braced, secured or removed to prevent their falling into the open excavation.
- 14. **Stability of Adjacent Structures:** Whenever excavating operations could weaken adjoining buildings, wall or structures, support systems such as shoring, bracing or underpinning will be utilized.

Support Systems

- 1. **Timber Shoring:** All timber shoring systems will be designed in accordance with Appendices A and C of Subpart P Excavations from 29 CFR 1926 Standards for Construction.
- Aluminum Hydraulic Shoring (AHD): All aluminum hydraulic shoring systems will be designed from Manufacturers Tabulated Data or when not available in accordance with Appendix D or Subpart P – Excavations from 29 CFR 1926 Standards for Construction.

Aluminum hydraulic shoring systems designed from the manufacturer's tabulated data will be in accordance with the manufacturer's recommendations, specification and limitations.

- a. Important: Any deviation from the manufacturer's recommendations or specifications must be approved by the manufacturer.
- b. Altered systems with the manufacturer's approval shall have a written copy of that approval on site during construction of the system and a copy kept at the main office.

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Registered Professional Engineer: Systems designed by a registered professional engineer shall include the following:

- 1. A plan indicating the sizes, types and configurations of the materials to be used in the protective system; and
- 2. The identity of the professional engineer designing the system
- 3. A copy of the design shall be kept onsite during the construction of the system and a copy will be kept at the main office.

Trench Boxes: Trench boxes will be used in accordance with the loads for which they were designed.

- a) Trench boxes shall be installed to prevent lateral movement in the event of cave-ins, etc.
- b) Employees shall not enter or exit a trench box from any part of the trench that is unprotected.
- c) Employees will not be allowed inside of trench boxes when they are installed, removed or moved vertically.
- d) Trench boxes must extend at least 18 inches above the top of the vertical side to prevent tools and/or debris from falling into the excavation/trench.
- e) Excavations of earth material to a level not greater than two feet below the bottom of the shield or trench box shall be permitted, but only if the shield or support system is designed to resist the forces calculated for the full depth of the trench, and there are no indications of soil movement from behind the shield or support system.

Excavations – General

- A. This section provides guidance for the protection of personnel working in and around all types of excavations.
- B. Prior to commencing an excavation or trench, utility companies or owners shall be contacted and advised of the proposed work, to determine the location of all underground installations (i.e. sewer, telephone, water, fuel, electric and gas lines).

When the excavation or trench approaches the estimated location of such an installation, the exact location shall be determined by careful probing or hand digging (pot holing) and when it is uncovered, proper supports shall be provided for the existing installation.

Overhead hazards are to be assessed and dealt with at this time also.

- C. Necessary barricades, posting and lighting shall be provided for the protection of the public and employees at the trench or excavation.
- D. In locations where oxygen deficiency or gaseous conditions are possible, air in the excavation or trench shall be tested. Controls shall be established to assure acceptable atmospheric conditions. When flammable gases are present, adequate ventilation shall be provided or sources of ignition shall be eliminated. Attended emergency rescue equipment, such as breathing apparatus, a safety harness and line, basket stretcher, etc. should be readily available where adverse atmospheric conditions may exist or develop in an excavation or trench. A log shall be maintained of all test results.

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- E. In excavations and trenches in which employees may be required to enter, excavated or other material shall be effectively stored and retained at least 2 feet or more from the edge of the excavation. An alternative to this clearance requirement, effective barrier or other effective retaining devices may be used in lieu thereof in order to prevent excavated or other materials from falling into the excavation.
- F. Additional precautions by way of shoring and bracing shall be taken to prevent slides or cave-ins when excavations or trenches are made in locations adjacent to backfilled excavations, or where excavations are subjected to vibrations from railroad or highway traffic, the operation of machinery, or any other source. When personnel are required to work in trenches or excavated areas, all slopes should be excavated to at least the angle or repose or otherwise safety supported to prevent cave-ins.
- G. The determination of the angle of repose and design of the supporting system shall be based on careful evaluation of pertinent factors such as: depth of cut; possible variation in water content of the material while the excavation is open; anticipated changes in materials from exposure to air, sun, water, or freezing; loading imposed by structures, equipment, overlying material, or stored material; and vibration from equipment, blasting, traffic or other sources.
- H. Daily inspections of excavations and trenches shall be made by a competent person. If evidence of possible cave-ins or slides is apparent, all work in the excavation or trench shall cease until the necessary precautions have been taken to safeguard the employees.
- I. Walkways, runways, and sidewalks shall be kept clear of excavated material or other obstructions and no sidewalks should be undermined unless shored to carry a minimum live load of one hundred and twenty-five (125) pounds per square foot.
- J. Scaling operations shall be performed only by experienced crews under the direct supervision of a competent supervisor. The scalers shall be provided with scalers lifelines, safety belts, boatswain chair and/or other safety equipment necessary for their protection.
- K. Employees shall not work in excavations where water is accumulating unless adequate precautions have been taken to protect employees against the hazard posed by the water accumulation. If water accumulation is controlled or prevented by water removal equipment, the competent person must monitor the removal activities to ensure proper operation.

Diversion ditches, dikes or other suitable means shall be used to prevent water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation.

- L. All employees shall be protected with proper personal protective equipment for the protection of the head, eyes, respiratory organs, hands, feet and other parts of the body.
- M. Employees exposed to vehicular traffic shall be provided with and shall be instructed to wear warning vests marked with or made of reflectorized or high visibility material.
- N. Trees, boulders and other surface encumbrances shall be removed or otherwise made safe before beginning excavation.

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Definitions

- A. **Excavation** Any manmade cuts, cavity, trench, or depression in the earth's surface formed by earth removal, regardless of dimensions, which produces unsupported soil conditions.
- B. **Trench** A narrow excavation below the surface of the ground, less than 15 feet wide as measured at the bottom. Its depth cannot be greater than its width.
- C. **Competent Person** One who has had specific training in and is knowledgeable about, soil analysis, the use of protective systems and requirements of the standard. He/she must also be capable of identifying existing and predictable hazards in the surroundings or working conditions which are hazardous, unsanitary or dangerous to employees, and must have the authority to take prompt corrective measures to eliminate them.
- D. **Benching** This is a method of protecting employees from cave-ins by shaping the sides of an excavation to form one or a series of horizontal levels or steps, usually with near-vertical surfaces between levels.
- E. **Registered Professional Engineer** A person who is registered as a professional engineer in the state where the work is to be performed.

Access

- A. In trenches 4 feet or more in depth, ladders, steps, ramps or other safe means of access and egress shall be provided and located at intervals of 25 feet or less of lateral travel. If a ladder is used, the ladder will extend 3 feet above the original surface of the ground.
- B. Walkways, ramps, or bridges with standard guardrails will be provided at all excavations and trenches where employees are required or permitted to cross over. The crossing will be made of tightly secured uniformly sized planking.
- C. Trenches, ditches, etc., over which workers or equipment are required to cross shall be provided with walkways or bridges with standard guardrails.

Dust Control

Dust conditions should be kept at a minimum level by the use of water or other safe means.

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Confined Space

- A. Every trench or excavation four feet or deeper, shall be tested at least daily prior to employees entering the trench. In locations where employees may be subjected to hazardous dusts, gases, fumes, or an atmosphere deficient in oxygen, employees will be provided with proper respiratory protection, instructed in its use, and required to use such protection. Rescue equipment will be immediately available in such circumstances for use by competent personnel. If the atmosphere in the confined space is deemed hazardous, Drilling Service employees are forbidden entry.
- B. An employee identified as a ``competent person'' will be trained initially and every two years thereafter in accordance with the OSHA Trenching and Excavation Standards.
- C. A copy of all completed excavation permits and trench/excavation designs by the Registered Professional Engineer are to be maintained with the Safety files on the project until project completion.
- D. The 1926 OSHA Trenching Standard should be consulted for other items and circumstances some of which include:
 - 1. Structural ramp requirements for access and egress (personnel or equipment)
 - 2. Water removal from excavation
 - 3. Protective system damage
 - 4. Manufacturer's approval to deviate from standards
 - 5. Support system removal

Trenching Operations

- A. Banks more than five feet high shall be shored, laid back to a stable slope, or other equivalent means of protection shall be provided where employees may be exposed to moving ground or cave-ins. Trenches less than five feet in depth shall also be effectively protected when examination of the ground indicated hazardous ground movement may be expected.
- B. Sides of trenches in unstable or soft material, five feet or more in depth, shall be shored, sheeted, braced, sloped, or otherwise supported by means of sufficient strength to protect the employees working within them.
- C. Portable trench boxes or sliding trench shields may be used for the protection of personnel in lieu of a shoring system or sloping. Where such trench boxes or shields are used, they shall be designed, constructed, and maintained in a manner which will provide protection equal to or greater than the sheeting or shoring required for the trench.

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- D. Employees shall be safely spaced out in the trench and shall not be permitted in the immediate area of the excavating equipment.
- E. When employees are required to be in trenches four feet deep or more, an adequate means of exit, such as a ladder or steps, should be provided and located so as to require no more than 25 feet of lateral travel.
- F. Bracing or shoring of trenches shall be carried along with the excavation.
- G. Cross braces or trench jacks shall be placed in true horizontal position, be spaced vertically, and be secured to prevent sliding, falling, or kickouts.
- H. Backfilling and removal of trench supports shall progress together from the bottom of the trench. Jacks or braces shall be released slowly and, in unstable soil, ropes shall be used to pull out the jacks or braces from above after employees have cleared the trench.

Excavation

- A. The walls and faces of all excavations in which employees are exposed to danger from moving ground shall be guarded by a shoring system, sloping of the ground, or some other equivalent means.
- B. Sides, slopes, and faces of all excavations shall meet accepted engineering requirements by scaling, benching, barricading, rock bolting, wire meshing or other equally effective means. Special attention shall be given to slopes which may be adversely affected by weather or moisture content.
- C. Materials used for sheeting, sheet piling, cribbing, bracing, shoring, and underpinning shall be in good serviceable condition, and timbers shall be sound, free from large or loose knots, and of proper dimensions.
- D. If it is necessary to place or operate power shovels, derricks, trucks, materials, or other heavy objects on a level above and near any excavation, the side of the excavation shall be sheet piled, shored, and braced as necessary to resist the extra pressure due to such superimposed loads.
- E. Adequate barrier physical protection shall be provided at all remotely located excavations. All wells, pits, shafts, etc. shall be barricaded or covered. Upon completion of exploration and similar operations, temporary wells, pits, shafts, etc., shall be backfilled or covered.
- F. Supporting systems; i.e., piling, cribbing, shoring, etc. shall be designed by a qualified person and meet accepted engineering requirements. When tie rods are used to restrain the top of sheeting or other retaining systems, the rods shall be securely anchored well back of the angle of repose. When tight sheeting or sheet piling is used, full loading due to ground water table shall be assumed, unless prevented by weep holes or drains or other means. Additional stringers, ties, and bracing shall be provided to allow for any necessary temporary removal of individual supports.



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Soil Classification

When using protective systems requiring soil classification each soil and rock deposit shall be classified by a competent person as ``Stable Rock, Type A, Type B, or Type C''. The classification shall be made based on the results of at least one visual and at least one manual analysis. Such analysis shall be conducted by a competent person using acceptable visual and manual test or other recognized methods of soil classification. The manual test consists of soil plasticity dry strength, thumb penetration, pocket penetrometer or result from a hand operated shear vane. The test will be documented utilizing the attached form signed and dated by the competent person.

Protective Systems

- A. Each employee in an excavation shall be protected from cave-ins by an adequate protective system.
- **B.** Protective systems shall have the capacity to resist all loads that are intended or could reasonably be expected to be applied or transmitted to the system.
- **C.** Slides, slopes, and faces of all excavations will be scaled, benched, rock-bolted, wire-meshed, or secured by some other equally effective means. Portable trench boxes or sliding trench shields may be used instead of shoring or sloping. Such boxes or shields must be of strength at least equivalent to the sheeting or shoring that would be required in the face of the nature of the soil or material in which the trench is made. The requirements for the appropriate option below must be followed and properly documented.

(Exceptions to the above)

- 1. Excavations that are made entirely in stable rock. (Natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed. First it must be classified by a competent person.)
- 2. Excavations that are less than five feet in depth where examination of the ground by a competent person provides no indication of a potential cave-in. (Must utilize a 34° slope, 1½' horizontal to 1' vertical.)

Sloping/Benching Systems

A. The slopes and configurations of sloping and benching systems for excavation 5 feet to 20 feet in depth must be selected and constructed by the employer or his designee and shall be in accordance with the following requirements.

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B. Soil analysis must be done to determine the soil or rock type by a competent person. (See appendices A, to OSHA 1926.650).*

Soil or Rock Type	Maximum Allowable Slope	
	Horizontal: Vertical)	
Stable Rock	Vertical 90°	
Туре А	3/4: 1 or 53°	
Туре В	1:1 or 45°	
Туре С	1-1/2 : 1 or 34°	

C. No soil classification is required if 1-1/2:1 (Horizontal: Vertical) or 34° slope is used. If a 1-1/2:1 (Horizontal: Vertical) 34° slope is not used a soil classification must be made. The excavation must comply with one of the three options:

Option I

Maximum allowable slope, and allowable configurations for sloping and benching systems shall be determined in accordance with the conditions and requirements in appendices A* (soil classification) and B* (sloping and benching).

Option II

Designs of sloping or benching systems shall be selected by using tabulated data based on soil conditions. These tables are to be calculated and prepared by a Registered Professional Engineer**. This information must be documented and filed on site with the Registered Professional Engineer's ** stamp on the plan.

Option III

- 1. Sloping and benching system must be designed by a Registered Professional Engineer**. This information must documented and filed on site with the Registered Professional Engineer's stamp on the plan.
- Sloping and benching of excavation in excess of 25 feet deep must be designed and stamped by a Registered Professional Engineer**.

Support and Shield Systems

Designs of support systems, shield system, and other protective systems shall be selected and constructed by the employer or his designee and shall be in accordance with one of four options.

A. Option I - Designs using appendices A*, C*, D*.

Timber shoring in trenching shall be determined using conditions and requirements of appendices A* (soil classification) C* (timber shoring for trenches) D* (designs for hydraulic shoring).

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B. Option II

Designs of support systems, shield systems or other protective systems, that are drawn from manufacturer's tabulated data shall be in accordance with all specifications recommendations and limitations issued or made by the manufacturer (i.e. trench jacks, hydraulic). This information must be filed on site.

C. Option III - Designs using other tabulated data.

Designs of support systems, shield systems, or other protective systems will be selected from and be in accordance with tabulated data. This information must be filed on site.

D. Option IV - Design by Registered Professional Engineer**

Support systems, shield systems, and other protective systems not utilizing Option I, II, III, shall be approved and stamped by a Registered Professional Engineer.**

- * OSHA 1926.650 Appendices
 - ** Registered in the state where the work is being performed

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ARTICLE 2: CLASSIFICATION OF SOILS

Visual detection of particle size and	Squeezed in hand and pressure released		Soil ribboned between
general appearance of the soli	When Air Dry	When Moist	moist.
Soil has a granular appearance in which the individual grain sizes can be detected. It is free-flowing when in a dry condition.	Will not form a cast and will fall apart when pressure is released.	Forms a cast which will crumble when lightly touched.	Can not be ribboned.
Essentially a granular soil with sufficient silt and clay to make it somewhat coherent. Sand characteristics predominate.	Forms a cast which readily falls apart when lightly touched.	Forms a cast which will bear careful handling without breaking.	Can not be ribboned.
A uniform mixture of sand, silt and clay. Grading of sand fraction quite uniform from coarse to fine. It is mellow, has somewhat gritty feel, yet is fairly smooth and slightly plastic.	Forms a cast which will bear careful handling without breaking.	Forms a cast which can be handled freely without breaking.	Can not be ribboned.
Contains a moderate amount of the finer grades of sand and only a small amount of clay over half of the particles are silt. When dry it may appear quite cloddy which readily can be broken and pulverized to a powder.	Forms a cast which can be freely handled. Pulverized it has a soft flour-like feel.	Forms a cast which can be freely handled. When wet, soil runs together and puddles.	It will not ribbon but it has a broken appearance, feels smooth and may be slightly plastic.
Contains over 80% of silt particles with very little fine sand and clay. When dry, it may be cloddy, readily pulverises to powder with a soft flour-like feel.	Forms a cast which can be handled without breaking.	Forms a cast which can freely be handled. When wet, it readily puddles.	It has a tendency to ribbon with a broken appearance, feels smooth.
Fine textured soil breaks into hard lumps when dry. Contains more clay than silt loam. Resembles clay in a dry condition; identification is made on physical behavior of moist soil.	Forms a cast which can be handled freely without breaking.	Forms a cast which can be handled freely without breaking. It can be worked into a dense mass.	Forms a thin ribbon which readily breaks, barely sustaining its own weight.
Fine textured soil breaks into very hard lumps when dry. Difficult to pulverize into a soft flour-like powder when dry. Identification based on cohesive properties of the moist soil.	Forms a cast which can be freely handled without breaking.	Forms a cast which can be handled freely without breaking.	Forms long, thin flexible ribbons. Can be worked intoa dense, compact mass. Considerable plasticity.
Identification based on the high organic content. Muck consists of thoroughly decomposed organic material with considerable amount of mineral soil finely divided with some fibrous remains. When considerable fibrous material is present, it may be classified as peat. The plant remains or sometimes the woody structure can easily be recognized. Soil color ranges from brown to black. They occur in lowlands. In swamps or swales. They have high shrinkage upon drying.			

Table 1. – Field Method for identification of soil texture

Drilling Service Company

DAILY EXCAVATION CHECKLIST

Client		Date	
Project Name		Approx. Temp	
Project Location		Approx Wind Dir	
Job Number		Safety Rep	
Excavation Depth & Width		Soil	
		Classification	
Protective System Used			
Activities In Excavation			
Competent Person Name			
Excavation > 4 Feet Deep? Yes	No. If YES, fill out a Confined Space P	Permit PRIOR to AN	Y person entering the

Excavation > 4 Feet Deep? _____ Yes _____ No. If YES, fill out a Confined Space Permit PRIOR to ANY person entering the excavation.

NOTE: Trenches over 4 feet in depth are considered excavations. Any items marked NO on this form MUST BE remediated prior to any employees entering the excavation.

YES	NO	N/A	DESCRIPTION	
	GENERAL			
			Employees protected from cave-ins & loose rock/soil that could roll into excavation	
			Spoils, materials & equipment set back at least 2 feet from the edge of the excavation	
			Engineering designs for sheeting and/or manufacturer's data on trench box capabilities on site	
			Adequate signs posted and barricades provided	
			Training (toolbox meeting) conducted with employees prior to entering excavation	
			UTILITIES	
			Utility company contacted and given 24 hour notice and/or utilities already located and marked	
			Overhead lines located, noted and reviewed with the operator	
			Utility locations reviewed with the operator, and precautions taken to ensure contact does not occur	
			Utilities crossing the excavation supported, and protected from falling materials	
			Underground installations protected, supported or removed when excavation is open	
			WET CONDITIONS	
			Precautions taken to protect employees from water accumulation (continuous dewatering)	
			Surface water or runoff diverted/controlled to prevent accumulation in the excavation	
			Inspection made after every rainstorm or other hazard increasing occurrence	

---EXCAVATION CHECKLIST CONTINUED ON REVERSE SIDE---

Page 2 (Excavation Checklist)

YES	NO	N/A	DESCRIPTION
	HAZARDOUS ATMOSPHERES		
			Air in the excavation tested for oxygen deficiency, combustibles, other contaminants
			Ventilation used in atmospheres that are oxygen rich/deficient and/or contains hazardous substances
			Emergency equipment available where hazardous atmospheres could or do exist
			Safety harne3ss and lifeline used
			Supplied air necessary (if YES, contact Drilling Service Safety Department)
			ENTRY AND EXIT
			Exit (i.e.; ladder, sloped wall) no further than 25 feet from ANY employee
			Ladders secured and extend 3 feet above the edge of the trench
			Wood ramps constructed of uniform material thickness, cleated together at the bottom
			Employees protected from cave-ins when entering or exiting the excavation

KEEP ONE (1) COPY OF EACH DAILY EXCAVATION CHECKLIST ON SITE FOR THE PROJECT DURATION AND FORWARD THE ORIGINAL TO THE SAFETY DIRECTOR.



Fall Protection

Section 11
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Purpose

To prevent slips and falls that may cause serious injury or death.

Background

Slips, trips and falls are a leading cause of serious injury, and often result in death. There are numerous OSHA regulations defining fall protection requirements for various heights and work situations. Fall protection requirements may start at distances of four feet or less.

Procedure

When preparing the Hazard Analysis and Work Plan for a project care should be exercised to research specific guidelines depending upon the project location and the work type and conditions.

Appropriate fall protection may be as simple as guard rails or as complicated as decelerator arrest system, a harness that is attached to a lanyard and an anchor point, or a net system.

All fall protection systems must be inspected by a competent person prior to the start of each work shift. Workers must be trained in proper use of the selected system prior to use of the equipment or system.

Training

- All employees are required to be trained/re-trained on fall protection annually.
- Training documentation is required by way of attendance rosters and will be kept with all training records.
- Most recent training rosters will follow Fall Protection Section of S&H Manual.

Requirements

If you are **6 feet** above the ground and exposed to a fall hazard, you are required by Drilling Service Company to use a fall arrest system. You need the system if:

- > You need to keep your hands free to work
- You are working near an open ledge
- > You are working over dangerous equipment
- > You need to be suspended above the ground to complete your job

An appropriate fall arrest system is a harness that is attached to a lanyard, which is attached to an anchor point. The lanyard should be free of cuts, abrasions and knots; attachments should always be utilized by self-locking mechanical connectors.

All fall protection equipment shall meet the requirements of applicable ANSI, ASTM, or OSHA/MSHA requirements.

Adequate fall-retrieval equipment shall be maintained on Drilling Service job sites.

Self-retracting fall arrest systems are used in more dangerous situations. At the start of the fall this type of system will automatically lock.

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Drilling Service DOES NOT require site-specific fall protection programs.

Work with your supervisor to determine the appropriate fall arrest method, equipment, and anchor means. Inspect the equipment yourself to assure there are no ripped stitches, cuts, abrasions, cracks, knots, or alterations that may alter its performance. The arrest equipment must be certified for your weight or more. You should also make sure it is rigged to prevent you from swinging and striking objects that may cause injury.

Accidents Investigation

In the event of a fall or near miss, an accident investigation shall be conducted.

Fall Rescue

In the event of a fall, provisions will be made to allow for fall retrieval in less than ten (10) minutes. Fall retrieval procedures must be in place before work begins.

If you or your supervisor has any questions about required fall protection or when to use it, please contact the safety department for assistance at 314-574-5417 (Sean Jackson).

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Fire Protection & Prevention

Section 12

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Purpose

The purpose of the Drilling Service Company Fire Protection and Prevention Program is to provide properly working first-response firefighting equipment and knowledge in its use.

The possibility of employee injury, financial loss to our clients and us, and the hazards posed to the general public make the prevention of fire one of the most important safety responsibilities on a construction project.

It is company policy that every employee become familiar with and practice good fire prevention habits in all phases of his/her or her daily activities.

While on the job, employees may be required to handle all small fires that may occur. Naturally, as in any job responsibility, properly functioning tools in good repair are a must. When a permit is issued for a job, the firefighting requirements are listed. On each job site there shall be immediate access to the required equipment, **WITH NO DELAY**, at all times.

Portable Fire Fighting Equipment

- A fire extinguisher, rated not less than 2A, shall be provided for each 3,000 square feet of the protected building area, or major fraction thereof. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet.
- One 55 gallon open drum of water with two fire pails may be substituted for a fire extinguisher rated at 2A.
- Fire extinguishers shall be kept in all job offices and at easily accessible locations around the work area. All employees should be familiar with the location of fire extinguishers and trained in their use. Fire extinguisher locations will be clearly marked.
- A 1/2 inch garden-type hose line, not to exceed 100 feet in length and equipped with a nozzle, may be substituted for a 2A rated fire extinguisher, providing it is capable of discharging a minimum 5 gallons per minute with a minimum hose stream range of 30 feet horizontally. Hoses shall be located so that at least one hose stream can be applied to all points in the area.
- One or more fire extinguishers, rated not less than 2A, shall be supplied for each level of multilevel job sites.
- Extinguishers and water drums subject to freezing shall be protected from freezing.
- An extinguisher, rated not less than 10B, shall be provided within 50 feet of wherever more than 5 gallons of flammable or combustible liquid or 5 pounds of flammable gas are being used on the job site. This requirement does not apply to the integral fuel tanks of motor vehicles.
- Portable fire extinguishers shall be inspected upon issuance or suspect of incident in conjunction with a 1-month required interval. A description of the inspection process appears as Attachment 1 to this section. Portable fire extinguishers shall be inspected annually and maintained in accordance with Maintenance and Use of Portable Fire Extinguishers, NFPA No. 10A-1970.

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Temporary Heating

- Temporary heating units must be in safe working order and have tip-over and flame-out switches. Closed flame type units are much preferred. Heaters shall be set on non-combustible surfaces and shall have a minimum of 5 feet of clearance from the nearest combustible objects in all directions. Extra fuel for heaters shall be stored outside the building.
- Burning barrels buckets, or open fires of any type are strictly prohibited.

Warning System

- o An alarm system shall be installed to alert employees in the event of an emergency
- Key employees will be trained in the emergency operation of the alarm system
- o All employees will receive training in the alarm procedure
- o Each subcontractor shall be informed of the alarm code
- Each subcontractor is to train his/her employees

Local Codes and Requirements

In many areas throughout the country, local fire prevention codes are stricter than OSHA's requirements. Generally, the local Fire Chief or Fire Marshal will provide assistance to the job in the area of code compliance.

Training

Training will be conducted upon initial assignment and at least annually thereafter.

Ignition Hazards

As per OSHA standard 1926.151 the following guidelines shall be followed:

- 1. Electrical wiring and equipment for light, heat, or power purposes shall be installed and used as outlined in the company's Electrical Safety Program.
- 2. Equipment powered by internal combustion engine will be located so that the exhausts are well away from combustible materials.
- 3. Smoking is prohibited at or in the vicinity of operations which constitute a fire hazard, and shall be conspicuously posted: "No Smoking or Open Flame."
- 4. Portable battery powered lighting equipment to be used in areas where flammable gases or liquids are stored, handled, or used shall be of a type approved for the hazardous locations.
- 5. No temporary building or structure shall be constructed in a location or manner that obstructs the means of exit.
- 6. All work and storage areas shall be kept free of the accumulation of unnecessary combustible materials. A regular procedure for the periodic cleanup of these areas shall be provided.
- 7. Portable fire extinguisher equipment, suitable for the fire hazard involved, shall be provided at convenient, conspicuously accessible locations in the yard area. Portable fire extinguishing equipment, rated not less than 2A, shall be placed so that maximum travel distance to the nearest unit shall not exceed 100 feet.

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Fire Anatomy

Ignition, fuel sources, and chemistry all play a part in fires. How they work together can help you understand how to prevent fires. In other words, the more you know about fires, the better prepared you are to prevent them.

Fire is a reaction characterized by the light and heat of combustion. There is quite a bit more to it than that, however. It has four basic components: fuel, heat or an ignition source, Oxygen, and a chain reaction (the process of combustion). These four elements make up what is known as the fire tetrahedron:



To burn, a fire needs enough oxygen to sustain combustion, enough heat to raise the combustible material to its ignition temperature, and some sort of fuel to feed the chain reaction.

The threat of fire is always present as long as the four elements of the fore tetrahedron are present. Keep in mind that fire can spread both vertically and horizontally. More often than not, the heat, smoke, and toxic fumes from a fire cause the most damage.

Class	Materials Burned	Extinguishing Agent	Symbol
А	Wood, paper, rubber, plastics	Water, dry chemicals	\bigtriangleup
В	Flammable liquids, gases, greases	Carbon dioxide, dry chemicals	
с	Electrical equipment, wiring, fuse boxes, circuit breakers, machinery	Carbon dioxide, dry chemicals	\bigcirc
D	Combustible metals	Special techniques, do not use common extinguishers	$\sum_{i=1}^{n}$

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FIRE EXTINGUISHER INSPECTION PROCESS

Upon starting a job, all fire extinguishers issued shall be visually inspected to assure that:

- The fire extinguisher is fully charged.
- The inspection tag and pull pin is in place.
- The inspection tag is up to date. (Month/Year) and inspected by a nationally recognized testing lab.
- The hose is in good repair, with no cracks, discoloration, or defects.
- The canister is free of defects such as cracks, heat exposures, or heavy rust.

All fire extinguishers in the possession of the company shall be inspected on a monthly basis. This procedure shall be documented by noting the date and inspector's initials on the grid that appears on the back of each extinguisher tag. In addition, a tag with a number between 1 and 12 shall be located around the neck of the canister or in the general vicinity of the gauge. In the event a unit does not have a current monthly tag on it, it shall be removed from service immediately.

The safety department shall keep a written log to indicate the location and last inspection date for each fire extinguisher.

Quick Reference Guide to Required	Rated	Gross Weight
Fire Extinguisher	Potential	in Pounds
Protected building areas – 1/3000 sf. – unobstructed travel distance of 100	2A	
ft. or less		
Next to stairwell on each floor in multi-story building	2A	
Outside storage yard – unobstructed travel distance of 100 ft. or less	2A	
Within 50 ft. of work operations where 5 or more gallons of flammable	2A20BC	20
liquid are in use		
Within 25ft. of welding, torch cutting or burning operations	2A20BC	20
Outside door of storage rooms containing 60 or more gallons of		
flammable/combustible	2A20BC	20
Liquids – Distance from door not to exceed 10 ft.		
Within 50ft. of stored flammable gas cylinders	2A20BC	20
Between 25 ft. and 75 ft. away from outside flammable liquid storage areas	2A20BC	20
Within 75 ft. of vehicle and equipment refueling and service areas	2A20BC	20
Inside the door in job trailers and change shacks	2A20BC	20
Mounted in cab and accessible to operators of cranes/equipment/job vehicles	5BC	5



First Aid

Section 13

DRILLING	Drilling Service	Section No.: 13
SERVICE S	Safety and Health Program	Initial Issue Date: 11/2014
TOPIC: First Aid & First Aid Kits		Revision Date:
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Introduction

First aid is emergency care provided for injury or sudden illness before emergency medical treatment is available. The first-aid provider in the workplace is someone who is trained in the delivery of initial medical emergency procedures, using a limited amount of equipment to perform a primary assessment and intervention while awaiting arrival of emergency medical service (EMS) personnel.

A workplace first-aid program is part of a comprehensive safety and health management system that includes the following four essential elements:

- _ Management Leadership and Employee Involvement
- _ Worksite Analysis
- _ Hazard Prevention and Control
- _ Safety and Health Training

OSHA Regulations

Sudden injuries or illnesses, some of which may be life-threatening, occur at work. The OSHA First Aid standard (29 CFR 1910.151) requires trained first-aid providers at all workplaces of any size if there is no "infirmary, clinic, or hospital in near proximity to the workplace which is used for the treatment of all injured employees."

In addition to first-aid requirements of 29 CFR 1910.151, several OSHA standards also require training in cardio pulmonary resuscitation (CPR) because sudden cardiac arrest from asphyxiation, electrocution, or exertion may occur.

If an employee is expected to render first aid as part of his or her job duties, the employee is covered by the requirements of the Occupational Exposure to Bloodborne Pathogens standard (29 CFR 1910.1030). This standard includes specific training requirements.

Responsibilities

All Project Managers and Superintendents are required to take and maintain a current First Aid / CPR certification. Training is provided through company trainers and/or nationally recognized training organizations.

First Responders have been identified at each office and shop location. First Responders are also provided First Aid / CPR training and required to retrain every 2 years.

All employees are trained annually in Bloodborne Pathogens Awareness through safety meetings.

First Aid Supplies

First aid supplies are stored in the following locations:

Company vehicles Employee vehicles

Sufficient First Aid Supplies are stocked at each of the above locations to accommodate crew size and in accordance with the minimum requirements per OSHA Regulations.

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First Responder Duties

First Aid is the initial emergency care given immediately upon arrival at the scene to an ill or injured person and continues until professional medical assistance takes over the care of the casualty (such as an ambulance EMT, Police Officer or Doctor.

A first responder's role is to:

- Preserve life.
- Protect the unconscious casualty.
- Prevent the condition worsening.
- Promote recovery.
- Call for medical assistance.

Priorities in an Emergency

In all emergency situations, the first responder must:

- Ensure the safety of themselves, any bystanders and the casualty(s)
- Assess the situation quickly.
- Call for help (911).
- Commence appropriate treatment within limits of their abilities.
- Closely monitor the casualty for changes in condition

Precautions to be taken:

- Wash your hands before and after treatment.
- Use disposable gloves when treating a casualty.
- Change gloves before treating a different casualty.
- Use protective aprons and eye protection where available.
- Cover any open cuts you may have with waterproof dressings.
- Wash off any body fluids immediately.
- Dispose of used gloves and contaminated waste correctly.
- Wash re-usable equipment in an anti-bacterial solution
- Use protective masks with a one-way valve and/or viral filter when performing Rescue Breathing.

Site Specific Instruction

First responders must be familiar with the EAP (Emergency Action Plan) at their job site location. When the decision is made to evacuate the building or job site, First responders will collect emergency supplies, and/or first aid kit, prior to evacuation.

First responders will make a final sweep through the building or job site as they are exiting the building to ensure that all personnel have evacuated.

Note. First responders must never attempt to re-enter a building or job site following an evacuation until Management or Emergency Personnel say it is safe to re-enter.

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FIRST AID KITS

Purpose

To assure adequate first aid kits are available at Company facilities in event of injury or illness.

Procedures

First aid kits shall be maintained in accordance with the requirements of OSHA.

Each facility shall maintain at least one first aid kit which shall be located in the workplace. In addition there shall be a truck sized first aid kit in each delivery vehicle.

Each Drilling Service Company employee who operates a delivery vehicle that contains a company issued first aid kit shall be responsible for maintaining that kit in satisfactory condition in the following ways:

- > Periodically check the kit to ensure it doesn't contain expired items.
- If you use something in the kit, get it replaced.
- If the kit needs updated, order another one from the Company and retain your current kit until you receive the updated one.

First Aid Kit Inventories

Inventory requirements for workplace and delivery truck first aid kits meeting project and facility needs are listed on the following page.

Note: If there are any questions pertaining to this procedure please contact Management.

Company First Aid Kit		Delivery Truck First Aid Kit	
Absorbent compress, 32 sq. in.	1	Absorbent compress, 32 sq. in.	1
Adhesive bandages, 1 in. x 3 in.	16	Adhesive bandages, 1 in. x 3 in.	16
Adhesive tape, 3/8 in. x 2.5 yd. total	1	Adhesive tape, 3/8 in. x 2.5 yd. total	1
Antibiotic treatment, 0.14 fl. Oz. (0.9 g)	6	Antibiotic treatment, 0.14 fl. Oz. (0.9 g)	6
Antiseptic,0.14 fl. Oz. (0.5 g)	10	Antiseptic,0.14 fl. Oz. (0.5 g)	10
application ²		application ²	
Burn treatment, 1/32 oz. (0.9 g)	6	Burn treatment, 1/32 oz. (0.9 g)	6
application ³		application ³	
First-aid guide ⁴	1	First-aid guide ⁴	1
Medical exam gloves	2	Medical exam gloves	2
	pairs		pairs
Sterile pads, 3 in. x 3 in.	4	Sterile pads, 3 in. x 3 in.	4
Triangular bandage, 40 in. x 40 in. 56 in.	1	Triangular bandage, 40 in. x 40 in. 56 in.	1

FIRST AID KIT SUPPLIES LIST

Optional items and sizes may be added to the basic contents listed above to augment a first-aid kit, based on the specific hazards existing in a particular work environment.



Flammable & Combustible Liquids Section 14

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General

Definition — Flammable liquids have a flash point of less than 140°F. Combustible liquids have a flash point greater than or equal to 140°F. These liquids are further divided into 3 classes (I, II, III) and subclasses (A, B, C) as summarized in the following table:

Classes of Flammable and Combustible Liquids

Flammable		Combustible			
Flas Vap	hpoint <100°F (38.7° or Pressure < 40 ps	C) sia	Flashpoint ≥	100°F (38.7°C)	
Class IA	Class IB	Class IC	Class II	Class IIIA	Class IIIB
Flashpoint <73°F(22.8°C) and Boiling point <100°F (37.8°C)	Flashpoint <73°F(22.8°C) and Boiling point ≥100°F (37.8°C)	Flashpoint ≥ 73°F (22.8°C) <i>and</i> <100°F (37.8°C)	Flashpoint ≥ 100°F (37.8°C) <i>and</i> <140°F (60°C)	Flashpoint ≥ 140°F (60°C) <i>and</i> < 200°F (93.3°C)	Flashpoint ≥200°F (93.3°C)

- A. Only approved containers, tanks, and pumping equipment shall be used for storage and handling of flammable and combustible liquids. Approved metal safety cans (with spring closing lid and spout cover, and optional flash arresting screen) shall be used for the handling and use of flammable liquids in 1 to 5 gallon quantities.
- B. All rags, waste, etc., soiled by combustible or flammable materials shall be placed in tightly closed metal containers for daily disposal.
- C. Adequate signs prohibiting smoking and open flames shall be posted near areas of storage and use of flammable liquids.
- D. Precautions including proper ventilation shall be taken to prevent the ignition of flammable vapors. Sources of ignition include but are not limited to: open flames: lightning; smoking; cutting and welding; hot surfaces; frictional heat; static, electrical, and mechanical sparks; spontaneous ignition, chemical reactions; and radiant heat. Safety data sheets (SDS) for all hazardous substances including flammable and combustible liquids, shall be provided by vendors or subcontractors, and maintained on site.

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- E. Approved personal protective equipment shall be required by all persons handling flammable or combustible liquids, as outlined by SDS sheets.
- F. Employees exposed to flammable or combustible liquids shall be trained in the hazards of these materials; in their safe handling, use and disposal; in their protection from ignition sources; in the type, use and placement of containers and cabinets; in the location of fire extinguishers; in the protection against toxic vapors and in the procedures to follow in case of spill or fire.

Indoor Storage

- A. Indoor storage of flammable liquids should be kept to a minimum. No more than 25 gallons of flammable or combustible liquids shall be stored outside of an approved storage cabinet.
- B. Flammable or combustible liquids shall not be stored in areas used for exits, stairways, or normally used for the safe passage of people.
- C. A single flammable storage cabinet shall not hold more than 120 gallons of flammable and combustible liquids, of which not more than 60 gallons shall be Class I and II flammable liquids.
- D. Up to three cabinets as indicated in 20.1 above may be grouped together. Groups of cabinets shall be separated by at least 100 feet.
- E. Cabinets shall be conspicuously labeled "Flammable--Keep Fire Away."
- F. Indoor flammable liquid storage rooms shall conform to NFPA codes including requirements regarding fire ratings, spill containment, maximum capacity, electrical classifications and ventilation requirements.
- G. Storage of LPG within buildings is prohibited.

Outside Storage

- A. A minimum of 20 feet shall be maintained between flammable and combustible storage areas and any building.
- B. Storage of containers (not more than 60 gallons each) shall not exceed 1,100 gallons in any one pile or area.
- C. The storage area shall be graded in a manner to divert possible spills away from buildings and should be curbed or diked so as to contain entire volume of liquids.
- D. The entire storage site shall be kept free from accumulation of unnecessary combustible materials. Weeds and grass shall be closely cut and a regularly scheduled cleanup procedure should be established for the whole area.

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E. Adequate access ways to open yard storage shall be maintained to allow access by fire-fighting equipment. Equipment that is blocking access shall be manned at all times so that it may be readily moved if necessary.

Dispensing and Refueling Areas

- A. Equipment being refueled shall have the engine shut off prior to fueling.
- B. Smoking is prohibited in vehicle and equipment refueling areas.
- C. Adequate protection shall be provided to safeguard dispensing pumps from physical damage from vehicles.
- D. Heating equipment installed in lubrication or service areas, where flammable liquids are dispensed, should be of an approved type and where feasible, should be installed at least eight feet above the floor.
- E. Tank cars and trucks being loaded or unloaded and flammable storage tanks and systems shall be properly bonded and grounded.
- F. Transfer of flammable liquids from one container to another shall be done only when containers are electrically interconnected (bonded).

Portable Fire Protection

- A. Listed portable fire extinguishers shall be furnished in such quantities, sizes and types as needed for the special hazards of operation and storage.
- B. At least one portable fire extinguisher rated not less than 20B:C shall be located in the following areas containing flammable and combustible liquids:
 - 1. Between 10-25 feet of an inside storage area
 - 2. Within 10 feet of each door leading to an inside storage room, but not inside the room.
 - 3. Between 25-75 feet of an outside storage area
 - 4. Within 75 feet of each pump, tank and other equipment in a service station
 - 5. On fuel dispensing vehicles



Hazard Communication/GHS

Section 15

ORILLING	Drilling Service	Section No.: 15
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Purpose

In order to comply with Federal, and State Occupational Health and Safety standards regarding chemicals in the workplace the following Globally Harmonized System Program has been established for all employees.

This program establishes policies and procedures for an effective Globally Harmonized System Standard. This standard implements the workers right to know regarding hazardous chemicals which may be present in the work place. The Globally Harmonized System Program will include container labeling, Safety Data Sheets, training, and the use of signage systems.

All chemicals used at our facilities and work sites are to have Safety Data Sheets (SDS) on file and available for review at any time. Included with the SDS is an index which identifies each product used at the sites, and a copy of the Globally Harmonized System Program.

Sub-contractors must supply SDS sheets for all chemicals they possess at the work site. Their SDS sheets shall be filed and indexed with the Company SDS records.

Employees shall review product labeling prior to use, in order to identify any chemical hazards as well as proper product usage. Each container should be reviewed for the manufacturer's label. Containers without labels, or having a damaged label, should have an identification label affixed that specifies each chemical and chemical hazard present.

Each new employee will receive a general orientation class prior to assignment covering general operation, routes of exposure, and any adverse health effects regarding biohazards, chemicals, information pertaining to the Globally Harmonized System Program, and Emergency Procedures.

Documentation of orientation will be placed in the employee's personnel file.

Employee Training and Information

Prior to starting work each new employee will receive information and training by attending a health and safety orientation briefing on the following:

- A. An overview of the requirements contained in the Globally Harmonized System Regulations.
- B. Chemicals present at the work site.
- C. Locations and availability of the written Globally Harmonized System Program.
- D. Physical and health effects of hazardous chemicals.
- E. Methods and observation techniques used to determine the presence or release of hazardous chemicals in the work area.
- F. How to lessen or prevent exposure to these hazardous chemicals through usage of control, work practices, and personal protective equipment.
- G. Steps the company has taken to lessen, or prevent exposure to hazardous chemicals.
- H. How to read labels and review Safety Data Sheets (SDS), and to obtain the appropriate hazard information.
- I. Training shall be performed on the hazards of non-routine tasks.

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Training Contractors and Visiting Regulatory Personnel

It is the responsibility of Management/Supervisors to provide contractors and their employees, and visiting regulatory personnel with the following information if applicable at the site:

- 1. Hazardous chemicals to which they may be exposed while on the job site.
- 2. Precautions the personnel should take to lessen the possibility of exposure to chemical hazards.

Container Labeling

All chemical containers used in the workplace are to be labeled with basic hazard information:

- A. Hazardous chemicals present
- B. Hazardous characteristics, i.e., Flammable, Corrosive, etc.

In most cases when products are purchased for use in their original containers this information should exist on the container. Where this basic information has been destroyed or removed it will be necessary for personnel to re- label the container appropriately.

Safety Data Sheets

Copies of the Safety Data Sheets for all hazardous chemicals to which employees may be exposed will be kept on Company premises. The SDS book shall be available to all employees.

Safety Data Sheets shall be provided to employees who may be exposed to potential occupational health hazards. Individuals will be informed of emergency procedures and safety precautions associated with hazardous materials by training and access to a knowledgeable supervisory staff.

Management shall review the information on the Safety Data Sheets to ensure the safe handling of hazardous products used in the work place. It is the supervisor's responsibility to be knowledgeable of known hazards and to require compliance with the safe practices outlined on the SDS. Regular inspections will consist of a review of the site's compliance with all labeling requirements.

How to Use a Safety Data Sheet

The following information is required on all SDS, and is standardized under the following format:

CHEMICAL IDENTIFICATION: This section of the SDS helps identify the chemicals. It lists the name of the chemical, any trade names, and the chemical manufacturer's name and address. This section may also list an emergency phone number.

HAZARDOUS INGREDIENTS: This section identifies the chemical that can harm you. It also may list the concentration of the chemical to which one can safely be exposed. These safe exposure limits are usually figured for average exposures over a typical 8 hour work shift.

PHYSICAL DATA: This describes the chemical's appearance, odor, and other characteristics. Percent volatile for instance is how much of the chemical evaporates at room temperature.

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FIRE AND EXPLOSION DATA: Describes the potential fire and explosive nature of the material. If a chemical is flammable it ignites below 100 degrees F. If it is combustible it ignites at 100 degrees F or above. This section also lists extinguishing media that will put out the fire safely such as water spray, foam, or other type of fire extinguisher.

HEALTH HAZARDS: Lists symptoms of overexposure, such as skin rash, burn, headache, or dizziness. It also indicates first aid and emergency procedures in case of over exposure, such as flushing exposed eyes or skin with running water for 15 minutes. It may also list any medical conditions that can be aggravated by exposure to the chemical.

REATIVITY DATA: Describes the potential reactivity of the chemicals. Incompatibility suggests the materials (such as water or other chemicals) that cause the chemical to burn, explode, or release dangerous gases. Instability suggests the environmental conditions (such as heat or direct sunlight) that can cause a dangerous reaction.

SPILL OR LEAK PROCEDURES: Describes what to use to clean up an accidental spill or leak. Before cleaning up a chemical spill you may need to wear respiratory protection, gloves, safety goggles, or protective clothing. This section may also include notes on how to dispose of the chemical safely.

SPECIAL PRECAUTIONS: Lists any other special precautions to follow when handling the chemical. This may include what supplies to have available to clean -up a spill or put out a fire, and what safety signs to post near the chemical. This section may also list any other health and safety information not covered in other parts of the Safety Data Sheet.



Hazard Communication Standard Pictograms and Hazards



Hazard Communication Written Program Section 16

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General

The following hazard communication program has been established for Drilling Service Company. This program will be available for review by all employees.

Hazard Determination

Drilling Service Company will rely on Safety Data Sheets (SDS) obtained from product supplier to meet hazard determination requirements.

Labeling

- A. Shawn Inglish will be responsible for seeing that all containers entering the workplace are properly labeled.
- B. All labels shall be check for:
 - a. Identity of the material
 - b. Appropriate hazard warning for the material
 - c. Name and address of the responsible party. (Only if the container is received from the manufacturer, distributor or importer)
- C. Each employee shall be responsible for ensuring that all portable containers used in their work area are labeled with the appropriate identity and hazard warning.

Safety Data Sheets (SDS's)

- A. Shawn Inglish will be responsible for compiling and maintaining the master SDS file. The file will be kept in/at the main office.
- B. Additional copies of SDS's for employee use are located in/at main office.
- C. SDS's will be available for review to all employees during each work shift. Copies will be available upon request to Shawn Inglish.
- D. If a required SDS is not received, Shawn Inglish shall contact the supplier, in writing, to request the SDS.

Employee Information and Training

- A. Shawn Inglish shall coordinate and maintain records of employee hazard communication training, including attendance rosters.
- B. Before their initial work assignment, each new employee will attend a hazard communication training class. The class will provide the following information and training:

Information:

- The requirements of the OSHA Hazard Communication Standard
- All operations in their work area where hazardous chemicals are present
- Location and availability of the written hazard communication program, the list of hazardous chemicals and the SDS's.

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Training:

- Methods and observations that can be used to detect the presence or release of hazardous chemicals in the work area.
- Physical and health hazards of the hazardous chemicals.
- Measures the employees should take to protect from these hazards.
- Details of the hazard communication program including explanation of labeling system and SDS's and how employees can obtain and use hazard information.
- C. The employee shall be informed that:
 - The employer is prohibited from discharging, or discriminating against, an employee who exercises his/her rights to obtain information regarding hazardous chemicals used in the workplace.
- D. Before any new physical or health hazard is introduced into the workplace, each employee who may Exposed to the substance will be given information in the same manner as during the hazard communication training class.

Multi-Employer Worksites: Informing Contractors

- A. If our company exposes any employee to any hazardous chemicals that we produce, use, or store the following information will be supplied to that employer:
 - 1. The hazardous chemicals they may encounter.
 - 2. Measures their employees can take to control or eliminate exposure to the hazardous chemicals.
 - 3. The container and pipe labeling systems used on-site.
 - 4. Where applicable SDS's can be reviewed or obtained.
- B. Periodically, our employees may potentially be exposed to hazardous chemicals brought on our site by another employer. When this occurs we will obtain from that employer information pertaining to the types of chemicals brought on-site, and measures that should be taken to control or eliminate exposure to the chemicals.
- C. It is the responsibility of Shawn Inglish to ensure that such information is provided and/or obtained prior to any services being performed by the off-site employer. To ensure that this is done the following mechanism will be followed:
 - Off-site employers will be directed to Drilling Service Company written Hazard Communication Program.

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List of Hazardous Chemicals

A list of all hazardous chemicals used by Drilling Service Company is attached to this document. Further information regarding any of these chemicals can be obtained by reviewing its respective SDS.

Materials which can be purchased by the ordinary household consumer, and which are used in the same fashion and amount as by the ordinary household consumer, are not required to be included in this list. (It is suggested that you maintain a separate list of all materials you consider to be "consumer use" materials)

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Hazardous Chemical List

Hazardous Chemical (Same name as on container label and SDS)

Attach all lists here:



Hearing Conservation Program Section 17

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 - E. Recordkeeping
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 - A. Hearing Conservation Training Log
 - B. Record of Hearing Protection Needs

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OBJECTIVE

The objective of the Drilling Service Company Hearing Conservation Program is to minimize occupational hearing loss by providing hearing protection, training, and annual hearing tests to all persons working in areas or with equipment that have noise levels equal to or exceeding an eight-hour time-weighted average (TWA) sound limit of 85 dBA (decibels measured on the A scale of a sound level meter). A copy of this program will be maintained by all affected departments. A copy of OSHA's Hearing Conservation Standard, 29 CFR 1910.95, can be obtained from Sean Jackson. A copy of the standard will also be posted in areas with affected employees.

ASSIGNMENT OF RESPONSIBILITY

- A. Management
 - a. Use engineering and administrative controls to limit employee exposure.
 - b. Provide adequate hearing protection for employees.
 - c. Post signs and warnings in all high noise areas.
 - d. Conduct noise surveys annually or when new equipment is needed.
 - e. Conduct annual hearing test for all employees.
 - f. Conduct hearing conservation training for all new employees.
 - g. Conduct annual hearing conservation training for all employees.
 - h. Records of employee exposure and audiometric measurements shall be maintained to comply with OSHA and ANSI Regulations.
- B. Employees
 - a. Use company-issue approved hearing protection in designated high noise areas.
 - b. Request new hearing protection when needed.
 - c. Exercise proper care of issued hearing protection.

PROCEDURES

- A. Noise Monitoring
 - a. Monitoring for noise exposure levels will be conducted by Sean Jackson. It is the responsibility of the individual departments to notify Sean Jackson when there is a possible need for monitoring. Monitoring will be performed with the use of sound levels meters and personal dosimeters at the discretion of Sean Jackson.
 - b. Monitoring will also be conducted whenever there is a change in equipment, process or controls that affect the noise levels. This includes the addition or removal of machinery, alteration in building structure, or substitution of new equipment in place of that previously used. The responsible supervisor must inform Sean Jackson when these types of changes are instituted.

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- B. Employee Training
 - a. Affected employees will be required to attend training concerning the proper usage and wearing of hearing protection. The training will be conducted by Sean Jackson, or a designated representative, within a month of hire and annually thereafter.
 - b. Training shall consist of the following components:
 - i. How noise affects hearing and hearing loss;
 - ii. Review of the OSHA hearing protection standard;
 - iii. Explanation of audiometric testing;
 - iv. Rules and procedures;
 - v. Locations within company property where hearing protection is required; and
 - vi. How to use and are for hearing protectors.
 - c. Training records will be maintained by Drilling Service Company Human Resources Department (See Attachment A).
- C. Hearing Protection

Management, supervisors and employees shall properly wear the prescribed hearing protection while working or traveling through any area that is designated as a high noise area.

- a. Hearing protection will be provided at no cost to employees who perform tasks designated as having high noise exposure and replaced as necessary. It is the supervisor's responsibility to required employees to wear hearing protection when noise levels reach or exceed 85 dBA. Those employees will have the opportunity to choose from at least two different types of hearing protection.
- b. Personal stereo headsets, or "MP3 devices," are not approved for hearing protection and are not permitted in any operating area of company property or jobsites.
- c. Signage is required in areas that necessitate hearing protection. It is the responsibility of Sean Jackson to provide signage to the appropriate areas.
- d. Preformed earplugs and earmuffs should be washed periodically and stored in a clean area. Foam inserts should be discarded after each use. Hands should be washed before handling preformed earplugs and foam inserts to prevent contaminants from being placed in the ear.
- e. Sean Jackson will keep a log of the areas or job tasks designated as requiring hearing protection, as well as the personnel affected by this Hearing Conservation Program (See Attachment B).
- D. Audiograms/Hearing Tests
 - a. Employees subject to the Hearing Conservation Program who have time-weighted average (TWA) noise exposures of 85 dBA or greater for an eight (8) hour work shift will be required to have both a baseline and annual audiogram. Baseline testing will not be completed unless the employee has gone fourteen (14) hours without work-related noise exposure. The audiograms will be provided by the Drilling Service Company and conducted by Safety Training Resources with no cost to the employee.

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- b. The baseline audiogram will be given to an employee within one (1) month of employment with Drilling Service Company and before any exposure to high noise levels. Annual audiograms will be performed within one year from the date of the previous audiogram. It is the responsibility of the individual and Sean Jackson to schedule the annual audiogram.
- c. If an annual audiogram shows that an employee has suffered a standard threshold shift, the employee will be retested within thirty (30) days of the annual audiogram. If the retest confirms the occurrence of a standard threshold shift, the employee will be notified in writing within twenty-one (21) days of the confirmation. Employees who do experience a standard threshold shift will be refitted with hearing protection and provided more training on the effects of noise.

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Attachment A

Hearing Conservation Training Log

Training Date:_____

Topic:_____

Training Conducted by:_____

Employee Name (printed)	Employee Signature	Job Title

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Attachment B

Record of Hearing Protection Needs

	Drilling Service Company Personnel in Hearing Conservation Program Date:			
Hearing p	protection is rec	uired for and has been issu	ed to the following personr	nel:
Employee Name	Department	Job Description/ Equipment Being Used	Type of Hearing Protection Issued	Date Issued



Heat Prevention

Section 18

ORILLING	Drilling Service	Section No.: 18
SERVICE S	Safety and Health Program	Initial Issue Date: 11/2014
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Purpose

The purpose of this plan is to assure that maximum emphasis is placed on preventing heat related illness in our workplaces. It will be accomplished by training personnel to identify and reduce the risks of incurring heat related illness. The Plan provides specific means to identify risk levels; specific actions that are to be taken to reduce risk; and procedures to follow in the event an employee suffers a heat related illness.

Definitions

- 1. Acclimatization: The body's temporary adaptation to work in heat that occurs as a person is exposed to it over a period of time.
- 2. **Double-layer woven clothing:** Clothing worn in two layers allowing air to reach the skin. For example, coveralls worn on top of regular work clothes.
- 3. **Drinking water:** Potable water that is suitable to drink. Drinking water packaged as a consumer product and electrolyte-replenishing beverages (i.e., sports drinks) that do not contain caffeine are acceptable.
- 4. Engineering controls: The use of devices to reduce exposure and aid in cooling (i.e., air conditioning).
- 5. Environmental factors for heat-related illness: Working conditions that increase susceptibility for heatrelated illness such as air temperature, relative humidity, and radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload (i.e., heavy, medium, or low) and duration, and personal protective equipment worn by employees.
- 6. **Heat-related illness:** A medical condition resulting from the body's inability to cope with a particular heat load, and includes, but is not limited to, heat cramps, heat rash, heat exhaustion, fainting, and heat stroke.
- 7. **Vapor barrier clothing:** Clothing that significantly inhibits or completely prevents sweat produced by the body from evaporating into the outside air. Such clothing includes encapsulating suits, various forms of chemical resistant suits used for PPE, and other forms of non-breathing clothing.

Procedures

Supervisors shall be responsible for making a daily analysis of heat-related hazards, increasing the amount of drinking water available when temperatures meet or exceed those listed in table 1 and taking prompt action when any heat-related illness may be identified.

The supervisor's daily analysis of heat-related hazards shall include air temperature, radiant heat, air movement, workload activity and the type of clothing worn by the employees as listed in Table 1. The supervisor is encouraged to use common sense when determining the hazards associated with heat and the workplace. For situations where temperatures may be border-line, it is always better to be on the safe side.

Adequate fluid intake is of primary importance in heat-related illness prevention therefore, employees are encouraged to increase their fluid consumption when temperatures meet or exceed those levels listed in Table 1. Depending on the temperature, work intensity and type of clothing, water consumption should be as much as 1 quart (1 liter) of fluid per hour.

It is highly recommended that the fluid consumed be of a hydrating nature. Water is most always the best choice for staying hydrated. Highly sugared drinks and those with caffeine are discouraged and may increase the potential of a heat-related illness.

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For someone suffering from a heat-related illness, responding in a timely manner could mean the difference between life and death. Any employee showing signs or demonstrating symptoms of heat-related illness must be immediately relieved from duty and provided with sufficient means to reduce their body temperature.

If there is any question of what particular symptoms the person affected is displaying, call 911 EMS or the area's emergency response number (see procedure for accidents, injury or illness on the job). While awaiting transport to the nearest medical facility, do not leave the affected person, monitor them closely and consistently provide heat reducing measures until medical help arrives.

Employee Responsibility

An integral piece of any successful plan relies on each employee's ability to make a determination of their own individual risk and symptoms of heat-related illness. After initial training, employees are responsible for gauging their own risk factors for a heat-related illness as well as monitoring their own fluid consumption throughout the day.

Information and Training

The following information will be provided to employees and supervisors concerning heat-related illness prior to commencing work at any subject worksite;

- 1. Employee training
 - a. Environmental factors that contribute to the risk of heat-related illness;
 - b. General awareness of person factors that may increase the susceptibility to heat- related illness including, but not limited to, an individual's age, degree of acclimatization, medical conditions, drinking water consumption, alcohol use, caffeine use, nicotine use, and use of medications that affect the body's response to heat.
 - c. The importance of removing heat-retaining person protective equipment such as nonbreathable chemical resistant clothing during all breaks;
 - d. The importance of frequent consumption of small quantities of drinking water or other acceptable beverages;
 - e. The importance of acclimatization;
 - f. The different types of heat-related illness, the common signs and symptoms of heat-related illness; and
 - g. The importance of immediately reporting signs or symptoms of heat-related illness in either themselves or in co-workers to the person in charge and the procedures the employee must follow including appropriate emergency response procedures.
- 2. Supervisor training
 - a. The information required to be provided to employees listed above;
 - b. The procedures the supervisor must follow to implement the applicable provisions of this heat-related illness plan;
 - c. The procedures the supervisor must follow if an employee exhibits signs or symptoms consistent with possible heat-related illness, including appropriate emergency response procedures; and
 - d. Procedures for moving or transporting an employee(s) to a place where the employee(s) can be reached by an emergency medical service provider, if necessary.



Housekeeping

Section 19
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Housekeeping is an important element of every safety and health program. Most safety experts will agree that they can tell a lot about a facility's accident and injury experience simply by looking at the housekeeping. Facilities with poor housekeeping generally have poor safety results, while facilities with superior housekeeping typically have very few injuries.

Many painful and sometimes disabling injuries are caused when employees are struck by falling objects or by striking against or tripping over objects they did not see. Many injuries and property damage losses stem from fires caused by poor housekeeping practices and improper storage of flammable materials. The best protection against these hazards is good housekeeping.

When materials are stored properly with adequate space to move through the storage area or with adequate clearance to work within the storage area, accidents can be avoided. With some pre-planning, tripping hazards can be avoided and many other sprains, fractures, and bruises that result from falls can be prevented.

Aside from the accident prevention benefits, good housekeeping means efficient performance. When materials, tools, and equipment all have a place for orderly storage, and are returned to the proper place after use, they are easier to find and easier to inspect for damage and wear.

The following housekeeping safety procedures apply:

- 1. Keep work areas and storage facilities clean, neat and orderly.
- 2. Keep all aisles, stairways, passageways, exits and access ways to buildings free from obstructions at all times. Remove all grease and water spills from traffic areas immediately.
- 3. It is everyone's responsibility to pick up and clean up.
- 4. Do not place supplies on top of lockers, hampers, boxes or other movable containers at a height where they are not visible from the floor.
- 5. When piling materials for storage, make sure the base is firm and level. Cross tie each layer. Keep piles level and do not stack piles too high. Keep aisles clear and maintain adequate space to work in them.
- 6. When storing materials suspended from racks or hooks, secure them from falling and route walkways a safe distance from the surface beneath.
- 7. When storing materials overhead on balconies or mezzanines, provide adequate toe boards to keep objects from rolling over the edge.
- 8. Do not let materials and supplies that are no longer needed accumulate. IF IT IS NOT NEEDED, GET RID OF IT!
- 9. Tools, equipment, machinery and work areas are to be maintained in a clean and safe manner. Defects and unsafe conditions must be reported to your supervisor.
- 10. Return tools and equipment to their proper place when not in use.
- 11. Lay out extension cords, air hoses, water hoses, ladders, pipes, tools, etc., in such a way as to minimize tripping hazards or obstructions to traffic.
- 12. Clean up spills immediately to avoid hazards. In the event the removal cannot be done immediately, the area must be appropriately guarded, signed or roped off.

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- 13. Nail points, ends of loop or tie wires, etc. must not be left exposed when packing and unpacking boxes, crates, barrels, etc. Nails are to be removed as soon as lumber is disassembled.
- 14. Store sharp or pointed articles to keep co-workers from coming in contact with the sharp edges or points
- 15. Dispose of all packing materials properly to reduce the chance of fires.
- 16. Empty wastebaskets daily into approved containers.
- 17. Put oily and greasy rags in a metal container for that purpose and dispose of properly and frequently.
- 18. Maintain adequate lighting in obscure areas for the protection of both employees and the public. Keep landscaping well-manicured to minimize hiding places.
- 19. Employees are not to handle food, tobacco, etc., with residue from any lead-based product (such as leaded gasoline) on their hands. Consumption of food and beverages is prohibited in areas where hazardous substances are stored or used.
- 20. Employees whose hands are cut or scratched are not to handle any lead-based products.
- 21. All switches or drives on machinery must be shut down and locked out before cleaning, greasing, oiling, or making adjustments or repairs.
- 22. Circuit breaker boxes and fuse boxes should be kept closed at all times. It is a requirement to maintain a minimum clearance of 36 inches in front of them.
- 23. Flammables (kerosene, gasoline) and combustible materials (coats, rags, cleaning supplies) should not be stored in mechanical rooms or around electrical boxes.
- 24. Extension cords should not be run across aisles or through oil or water. Inspect cords for kinks, worn insulation, and exposed strands of wire before use.
- 25. When fuses blow continually it is an indication of an overload or short. Report this condition to your supervisor immediately.
- 26. Keep electrical equipment properly maintained and free of grease and dirt.
- 27. To prevent static sparks, keep drive belts dressed. Also check belts for proper tension to prevent overloading motors.
- 28. Maintain fire inspections and other fire prevention measures.
- 29. Observe all safety warning signs, including locks and tags on equipment such as; No Smoking, Confined Space, etc.



Injuries | Accidents | Near Misses Section 20

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TOPIC: Injuries Accidents Near		Revision Date:
Misses		
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Purpose

The following procedure outlines the steps to take if an accident/injury/illness happens on the job.

Procedure for Emergency Accident/Injury/Illness

- 1. Owner or Supervisor is to take charge immediately
- 2. Call 911 EMS or the area's emergency response number if an injury or illness requires emergency treatment or transport.
- 3. Render Good Samaritan first aid if possible
- 4. Arrange for transportation (ambulance, helicopter, company vehicle, etc.)
- 5. Notify Product Manager and President if not already present.
 - a. President Cell: 314-575-1934 b. President (Home office) 314-291-1111
- 6. Do not move anything unless necessary to protect the injured pending an investigation of the accident.
- 7. Accompany or take injured/ill worker to doctor, hospital, home, etc. (Depending on extent of injuries)
- 8. Remain with injured until relieved
- 9. When the injured/ill person's immediate family is known by the management or supervisor, they should properly notify these people, preferably in person, or have an appropriate person do so.

Procedure for immediately after Accident/Injury/Illness

- 1. Contact the Project Manager/President of the company as soon as the situation is stabilized. Arrange for drug and alcohol testing in accordance with Company policy.
- Minor injuries including those that do or do not require offsite medical attention, and Near Misses must be documented and investigated after the emergency actions following an accident an Incident investigation Form must be prepared, and an investigation of the accident conducted by the immediate supervisor and or the site superintendent.
- 3. Major injuries (fatality or multiple hospitalizations): The Corporate Office will notify the Department of Labor and Industries, or OSHA (depending upon jurisdiction) as soon as possible (must be reported within 8 hours), and assist in conducting the incident investigation.

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Incident Reporting Procedures

Drilling Service Company believes consistent incident reporting procedures can help identify problematic and unsafe operations as well as increase safety in the workplace. Therefore, it is imperative that we institute and consistently use specific procedures for reporting incidents and near misses.

1. Contact Project Manager/President to review circumstances of the incident/equipment damage:

President Cell: 314-575-1934 or Main Office: 314-291-1111

- 2. The above managers will discuss the situation to determine if the situation should be classified as an incident or operational damages.
- 3. If it situation is deemed non-operational and an incident form/investigation is requested by one of the above managers, all appropriate incident investigation measures shall be performed. These measures shall include but is not limited to the following:
 - 1. The incident investigation form shall be filled out in its entirety following the Incident Investigation Form Instructions contained in the Safety and Health Manual.
 - 2. Pictures shall be taken of any and all equipment damages as well as the surrounding area if needed
 - 3. Witnesses must be interviewed and all information gained from them documented
 - 4. Drug and alcohol testing must be performed whenever there is an incident investigation sheet filled out
 - 5. Any other documentation or paperwork that would help in the investigation should be sent

Employee Name:	Date Time of Incident:/:AM/PM
Shift Time Began: AM/PM Loca	ntion:
Names of Witnesses:	
Describe the Incident:	
EXPLAIN: What part of the body was affected	ed:
Other important details of the incident:	
Type of Injury/Illness:	Was First Aid Required: YES NO
Did the accident require a doctor's treatment?	? YES NO
Hospital/Physician providing treatment:	·
Address Phone Number:	
Will this be a Lost-Time Case? YES NO	Date/Time of next Physician's appointment:
Was the amployee instructed to keep the com	many informed of his/her progress? VFS NO
If not, why?	party morned of myner progress: TES (NO
Was the employee competent and skillful in h	nis/her.iob? YES NO
Was the employee trained effectively? YES	NO Do they require or would they benefit from additional training? YES NC
Incident Result of: Equipment Failure: YES	NO Employee Error: YES NO
Operator Drug Test Required: YES NO	Drug Test Obtained By:
Operator Alcohol Test Required: YES NO	Alcohol Test Obtained By
Action Takan To Brownt Be accurrence:	
Does the Incident Indicate Changes in Operat	tional Procedures Required? YES I NO
Does the Incident Indicate Changes in Operation	ng Procedures Required? YES NO
Explain Any Changes Required:	
Employee's Signature:	Date:
Management/Supervisor Signature:	
	Date:



Jobsite Safety Inspections

Section 21

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Purpose

Frequent and regular jobsite safety inspections are an important part of an effective safety program. In addition to the inspection responsibilities of jobsite superintendents and/or the site safety manager outlined below, representatives of Drilling Service and Drilling Service insurance carriers, and professional safety consultants may also perform jobsite inspections.

Jobsite Superintendent Inspection Responsibilities

The job superintendent and/or the site safety manager shall perform weekly inspections on his/her jobsite. If the job superintendent and/or site safety manager is unavailable, a competent person who is familiar with the inspection process may be designated to conduct the inspection.

During the inspection, pre-planning should be done with subcontractors to discuss what safety requirements must be met to perform upcoming construction activities. The pre- planning process is important to address safety hazards prior to employee exposure. In cases where there are questions as to what safety measures are needed, the superintendent and/or the site safety manager should contact the main office. Available resources will be utilized to identify what safety measures will be taken to ensure employee safety.

Frequency

All jobsites must be inspected by the superintendent and/or the site safety manager at least once a week. The frequency of inspections may be increased as the job progresses, for specific areas of a job, or for special critical work.

Documentation

Superintendent and/or the site safety manager will complete the Jobsite Inspection Checklist at the conclusion of each weekly inspection. A copy of the form, which must include any disciplinary action taken against employees, should be forwarded to the main office. Letters sent to subcontractors due to violations observed during a jobsite inspection must include a copy of the safety inspection form describing the violation.

Corrective Actions

If any concerns are observed during the inspection they must be immediately addressed and corrected. Safety violations must be corrected so the operation is performed in a safe manner. The employee(s) should be informed of what the violation is and made aware of acceptable methods. The consequences for repeat or serious safety violations also need to be addressed with the employee(s). If there is a person or party responsible for any observed concern(s), that information must be documented on the inspection report form.

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Drilling Service Company: SITE SAFETY SURVEY

Project Name: _____

YES	NO	
		Is work area clean and orderly?
		Rig and other equipment free of material and trash?
		Flammable liquids stored in approved containers and compressed gas tanks chained up vertically?
		Tools and equipment inspected and in good condition?
		All fall protection equipment available and in good condition?
		Hole barricades available and in-use?
		Fire extinguishers in place and in good working order?
		Safety equipment and supplies are available and no other supplies are needed?
		OTHER:
		OTHER:

Corrective actions must be taken immediately if any of the above questions are answered "NO"!

Provide details of corrective action taken:

Foreman/Supervisor Name & Signature

Date

JOB HAZARD ANALY	SIS				In case of an incide	ent, the following people
Job/Task: Work Location: Employee(s):		Date:		⁻ New ⁻ Revised	will be Supervisor: Safety: Other:	e contacted:
 What is the most hazardous Are you properly trained to c What do you need to ensure 	part of this job and what are y omplete these tasks? this job is completed incident	vou going to do to co	ntrol the hazard	E		or
What conditions, job change Sequence of Job Steps	s or distractions could call for Potentia	the need to use Sto al Hazard(s)	p Work Authority Recom	mended A	ction/Procedure	Examine each step
						 carefully to find and identify hazards or potential dangers that could lead to injury, illness or damage. Consider the following: Chemical Hazard: _Inhalation _Skin Contact _Absorption _Injection _Ingestion Biological Hazards: _Bloodborne Pathogens _Mold _Valley Fever _Plant/Insect/Animal Physical Hazards: _Electrical _Fire/Explosion _Noise _Radiation _Thermal Stress _Pinch Point/Line of Fire _Slips/Falls _Strike against/Struck by
Additional Personal Protective Equipment Req'd Required Permits/Safe Work Plans Gas Detection	tace shield + chemical goggle teather gloves + cut resistant thearing protection + fall protect teather gloves + the Work Peri thearing protection + fall protect thearing protection + fall	es + chemical protective gloves + respiratory protection + Other mit + Confined Space Er Conductors + Simultane CO Monitor + Other	clothing †rubber b ection	oots + cherr	ircal resistant gloves _† arm protection †Lift Plan/Crane Ops	Ergonomic Hazards: _Repetition _Forceful exertion _Awkward Posture _Contact Stress _Vibration Work Area Design
Equipment Needed List hazardous substances MSDS reviewed? †yes †n/a		,				Drilling Service
Site Control	†barricades †post signs †cau †establish meet and greet proce	tion tape †designated ar ess † Other	rea for vehicles †he	avy equipme ⊁ Other	ent spotter	Company
Environmental Conditions	Weather:	Terrain:		Wildlife:		13230 Ferguson Lane
Hazardous Energy Control	+LO/TO checklist complete +L + electrical + hydraulic + pneum	O/TO devices in place † atic †mechanical †therr	energy isolation ve nal †chemical	rified †Sto †Lin	red Energy e Of Fire	Bridgeton, MO 63044
Tools and Equipment		e ∻trained in use of to ed:	ol/equipment			114

Work Site Diagram – Include equipment set-up, evacuation route, assembly area and identified hazards

JSA Reviewed by:



Ladders

Section 22

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General

- 1. Except where permanent stairways, temporary stairways, suitable ramps or runways are provided, ladders must be provided to give safe access to all elevations.
- Employees shall be instructed and required to ascend/descend ladders in the proper manner; facing the ladders and holding on the side rails with both hands, maintaining three points of contact. Material shall be raised or lowered with a line or hoisting equipment and not carried in one hand while ascending or descending.
- 3. Manufactured ladders must conform to appropriate safety codes. (ANSI A-14.1)
- 4. Reference 29 CFR 1926.1050 Subpart X.
- 5. Ladders shall be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe use. In accordance with 29 CFR 1926.1053 (b) (15).
- 6. No ladder shall be loaded beyond the manufactured rated capacity.

Manufactured Ladders

- 1. The use of portable, metal ladders should be restricted to areas which do not pose electrical hazards.
- 2. Portable ladders should be placed so the horizontal distance at the bottom of the ladders is not less than one quarter (1/4) of the vertical distance to the top support. Ladders shall not be used in a horizontal position as platforms, runways, scaffolds or as support for other materials.
- 3. Portable ladders in use shall be blocked, tied or otherwise secured to prevent movement or displacement.
- 4. Ladders with broken or missing rungs and steps, broken or split side rails or other faulty and defective parts must not be used. When discovered with such defects, ladders shall be immediately withdrawn from service and marked for destruction or repair.
- 5. Ladders shall not be painted in such a manner as to hide the grain structure, deterioration, or defects. Ladders may be kept coated with a suitable transparent preservative material. (Cross-grain in rungs, cleats and steps is not permitted.)
- 6. The side rails and cleats or rungs of ladders must be kept clear and free of lines, hoses, cables, wires, oil, grease and debris.
- 7. Wood side rails must be seasoned, straight grained wood, free from shakes, checks, decay or other defects which will impair their strength. Low density woods shall not be used.
- 8. When not in use, all ladders should be stored under suitable cover. When stored horizontally, both ends and the middle will be supported to prevent sagging and warping of the rails.

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- 9. If a ladder is to provide the only means of access or exit from a working area for 25 or more employees, or simultaneous two-way traffic is expected, a double cleat ladder should be installed.
- 10. Portable ladders used on smooth floor or other smooth surfaces must be equipped with non-slipping bases or otherwise secured to prevent displacement.
- 11. Ladders shall be of sufficient length to project not less than three feet (36") above the top landing except where such an extension would, in itself present a hazard.
- 12. Ladders shall not be placed in passageways, doorways, driveways or any location where they may be displaced by other work activities, unless protected by barricades or guards.
- 13. Ascend no higher than the third rung from the top on straight or extension ladders, no more than the second step from the top of stepladders'
- 14. When working from a ladder, one hand should be free at all times to allow a firm grip on the ladder. Exception - both hands may be used when working through the rungs of a ladder.
- 15. Always face a ladder when ascending or descending.
- 16. Do not climb on the rear side of a stepladder.
- 17. Planks shall not be used on the top step of stepladders.
- 18. The lashing of ladders together to increase the length of the ladder is prohibited.
- 19. Always have free use of hands while ascending or descending ladders
- 20. The side rails and cleats or rungs of ladders must be kept clear and free of lines, hoses, cables, wires, oil, grease and debris.
- 21. Single portable ladders over thirty feet in length shall not be used. If greater heights are to be reached, separate ladders shall be used with intermediate landing platforms provided.
- 22. Ladders should not be used for working except for limited periods of time.
- 23. Ladders are primarily for ascending or descending from one level to another. Where work requires the use of tools and materials, or the job is of considerable duration, it is advisable to use a platform stepladder, scaffold or some other acceptable working base.

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- 24. Portable ladders should be placed so that the side rails have a secure footing.
- 25. The top rest should be rigid and have ample strength to support the applied load. The top of the ladder shall be nailed, or otherwise securely fastened, to prevent movement.
- 26. Uniform step spacing shall be used and must not exceed more than twelve inches (12").
- 27. Wood cleats shall be housed into the edges of the side rails not less than one-half inch (1/2"). Filler blocks may be used instead of housing. The cleats must be nailed to each rail with three (3) 10-D wire nails or fasteners of equivalent strength.

Job Made Ladders

- 1. Job made ladders shall be constructed for intended use. If a ladder is to provide the only means of access or exit from a working area for 25 or more employees or simultaneous two-way traffic is expected, a double cleated ladder shall be installed.
- 2. Double cleat ladders shall not exceed 24 feet in length.
- 3. The width of single cleat ladders shall be at least 15 inches, but not more than 20 inches, between rails at the top. Side rails shall be parallel or flared top to bottom by not more than one-quarter of an inch for each two feet of length.
- 4. Wood side rails of ladders having cleats shall be not less than 1-1/2 inches thick and 3-1/2 inches deep when made of Group 2 or 3 woods. Wood side rails of Group 4 woods may be used in the same cross section of dimensions for cleat ladders up to 20 feet in length. For Group classification of woods see 1926.450.
- 5. It is preferable that side rails be continuous. If splicing is necessary to attain the required length, however, the splice must develop the full strength of a continuous side rail of the same length.
- 6. Two (2) inch by four (4) inch lumber shall be used for side rails of single cleat ladders up to 16 feet long; 3" by 6" lumber shall be used for single cleat ladders from 16 feet to 30 feet in length.
- 7. Two (2) inch by four (4) inch lumber shall be used for side and middle rails of double cleat ladders up to 12 feet in length; 2" x 6" lumber for double cleat ladders from 12 to 24 feet in length.
- 8. Wood cleats up to and including 20" wide shall be 3/4" in thickness and 3" in width. Wood cleats over 20" wide shall be 3/4" in thickness and 3-3/4" in width.
- 9. Cleats shall be inset into the edges of the side rails one-half inch, or filler blocks shall be used on the rails between the cleats. The cleats shall be secured to each rail with three 10d common wire nails or other fasteners of equivalent strength. Cleats shall be uniformly spaced, 12" top-to-top.



Lockout/Tagout

Section 23

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Purpose

To protect employees servicing and maintaining equipment by preventing the accidental start up, or release of stored energy on machinery or equipment that is shut down for repairs, maintenance, or adjustments.

Background

Many injuries occur when a worker starts up a machine while another individual is working on it. Many other injuries are caused by workers who think they can maintain or service equipment without first shutting off the equipment. Inspections of the energy control procedure will be conducted and documented at least annually.

Definitions

Lockout protects workers who service or maintain equipment by placing a locking device on a component to prevent energy from reaching the machine that is being serviced or maintained. The lock ensures that the equipment or attachment cannot be turned on or activated while the work is occurring.

Tagout: the placement of a tag on the steering wheel to warn others that someone is working on the equipment and it is not to be started or activated (used along with a lock).

Lockout: the placement of a lock on the energy isolating device to prevent its operation

Authorized worker: One that maintains or services the equipment.

- Authorized workers are at greatest risk for being injured from an unexpected startup, or energizing of equipment or components. It is your responsibility to recognize all of the dangerous energy sources in the work place, to identify their potential hazards, and know how to avoid the dangers associated with them.
- You must inform the project superintendent or other pertinent supervisors why the equipment is being taken out of service; and how long you anticipate it being out of service.

Affected workers: Those that operate or use the equipment that is being serviced or maintained.

- Affected workers must understand all Lockout/Tagout procedures so they will not unintentionally restart or energize equipment. Unintentional restart or activation could result in injury or death to a worker servicing or maintaining the equipment. An affected worker should never try to restart or energize equipment if it is locked or tagged. Always assume that machines with locks or tags are being serviced or maintained by an authorized worker. Affected workers should never remove locks or tags.
- Other employees or workers may not normally operate, service, or maintain equipment; but they may work in the area where these activities occur. Therefore, they must be aware of the Lockout/Tagout procedures so they do not unintentionally restart or energize equipment that has been locked or tagged out. Other employees should never remove locks or tags, restart, or reenergize equipment that

has been locked or tagged out.

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Performing Lockout/Tagout Safely

Prior to starting the Lockout/Tagout procedure you must check the type of energy source, how much energy (such as electrical, steam, hydraulic, gravity, etc.) may be produced, and review the correct procedures for Lockout/Tagout. You should, if possible, notify co-workers and the superintendent that you will be initiating the Lockout/Tagout procedure.

Be sure you have identified all energy sources associated with the equipment. Some may have multiple energy sources, and all must be identified and separately isolated from the equipment.

Locks ensure that power sources can't be activated. Tags only serve as a warning that an energy isolating device has been shut down. An orderly shutdown of all equipment must be performed.

Tags should be used with locks to inform employees of the lockout, and to identify the authorized employee who attached the lock. The tag should contain the name of the individual placing the tag/lock and the location of the lockout device. This ensures all locks are in the same location and removes the risk of unintentional activation of the equipment.

Only authorized workers can attach locks or tags, and only the specific employee who attached the lock or tag, and his/her supervisor, or project superintendent has the authority to remove it.

If the equipment is not capable of being locked out:

- Attach the tag in the location as specified in lockout procedures.
- Attach the tag securely so it cannot be accidentally removed.
- Place the tag in a position so anyone attempting to operate the device will understand that moving the device from the OFF position is prohibited.
- If you are locking out a vehicle with a keyed ignition, take the key out of the ignition and lock it in the lockbox and place it on the seat of the vehicle. If you are going to service or work on the vehicle make sure to place chocks behind the wheels and jack/block properly.

Tagout devices are only a warning that an energy isolating device has been shut down. They do not provide the protection of a lock. Tags will not protect you from an accidental start up.

Locks and tags must be standardized in shape, color, and size. The tags must include words such as **DO NOT START, DO NOT OPEN, or DO NOT OPERATE**. Tags must identify the person who performed the Lockout/Tagout.

All lockout locks must be of the same type (easily identifiable), and may not be used for any other purpose. Each authorized worker should have an individually, identifiable lock and key.

Lockout devices must be removable by appropriate key only (supervisor's master key or authorized worker key). Lockout devices and tags must be capable of withstanding the environment.

After Lockout/Tagout devices have been applied the authorized employee must ensure that no hazardous energy remains present in the equipment. Stored energy could result in an injury if not released prior to start

of work.

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The authorized worker must verify that the machine is safe. The worker should turn all controls to the on position to ensure the machine will not start up. If any power source activates after the lockout procedure is complete, you must perform all lockout steps over again.

Restarting Equipment

The authorized worker should verify it is safe to re-energize the equipment. Ensure that all tools, spare parts, and debris have been removed from the area; all safety guards have been replaced; and the equipment is in acceptable condition to start and operate.

Prior to removal of lockout devices alert others in the area to make sure they are not exposed to danger. Let them know when it is safe to return.

The only person authorized to remove a lockout device is the person who attached it, his/her supervisor, or the superintendent. If the device is not yours don't touch it.

If locked or tagged equipment must be tested follow the same procedures used for restarting equipment. Test the equipment, and then perform all steps for lockout again.

Group Lockout/Tagouts

A group lockout situation occurs when more than one worker must service or maintain a piece of equipment. Each worker must attach their own lock or tag to a group lockout device when they are working on the equipment. This assures the equipment won't be started or energized while they are working on it. With the location of the lockout device written on the tag, there is no question where the next worker should place their lock. With all locks at the same location, the chance of unintended activation should be eliminated.

Work That Extends Beyond One Shift

If there are shift or personnel changes while a group lockout device is used the outgoing employee must wait until the incoming employee attaches their lock or tag before removing their own. This assures only one primary person is responsible for the Lockout/Tagout procedure at any time. In the case of a job with two shifts and there is a period of time between the shifts, the superintendent must replace the lock of the authorized worker. This must be done at the same time to assure continuity and that the machine remains locked out as required. The incoming authorized worker must then have the superintendent remove his lock so they can apply theirs.

If the lockout procedure being utilized involves uniquely keyed vehicles, the removed key shall be delivered to the mechanic assuming repair responsibility on the following shift. The outgoing mechanic shall not leave the site until transfer of key and responsibility occurs. In the event a master mechanic or other in charge mechanic is utilized at the project responsibility and the unique key shall be transferred to the master mechanic.

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Removing Another Worker's Lock or Tag

Removing someone else's lock or tag may immediately place them in danger so you should never remove another worker's tag or lock. However, if a situation arises that requires starting, moving, or using equipment that is locked or tagged out, and the individual who last locked or tagged out the equipment is not available to execute the procedures to reactivate and remove their lock, then their supervisor or the superintendent may remove the devices after using proper reactivation procedures. However, every effort must be made to contact the individual that applied his lock to have him remove it. After he is contacted and it is determined he is not on site, he must be informed of his locks removal by the supervisor or superintendent before he returns back to work.

Summary

Lockout/Tagout procedures are designed to protect workers who service and maintain equipment. A locking device that isolates energy from the equipment ensures the equipment cannot be started or activated. A tag placed on the energy activating device will warn others that you are working on the equipment, and that it must not be started or activated.

Equipment that isn't properly locked out or tagged can unexpectedly restart while you are working on it. Accidental start up or activation can cause serious injury or death.

Training

All employees and subcontractors covered by this procedure must be trained to ensure that the purpose and function of the Lockout/Tagout program are understood.

Additional training will be required when there is a change in job assignment, procedure or new equipment is introduced to job site.

Training shall be documented and performed by a qualified trainer. Training will be conducted annually.

Important Note:

Employees who violate this policy will be subject to disciplinary action up to and including discharge.



Motor Vehicles | Heavy Equipment Section 24

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General Requirements

- A. The U.S. Department of Transportation has issued certain regulations involving safety requirements, including Title 49, Parts 390-397 of Motor Carrier Safety Regulations, that are placed upon any person or entity engaged in interstate commerce as a common carrier, contract carrier or private carrier. Basically the DOT safety regulations apply to commercial motor vehicles having a gross vehicle weight rating (GVWR) of 10,001 pounds or more or any vehicle designed to carry 15 or more passengers including the driver. If there is a questions as to the applicability of these regulations, contact the nearest federal or state DOT office.
- B. All vehicles in use shall be checked at the beginning of each shift to assure that equipment, and accessories are in safe operating condition and free of apparent damage that could cause failure while in use. Drilling Service Company **Drill Rig Inspection Checklist** will be used for this purpose.
 - 1. It will be the operator's responsibility to report unsafe conditions.
 - 2. Vehicles or equipment unsafe to operate shall be taken out of service until repaired.
- C. All safety items on vehicles and equipment will be inspected and serviced regularly by a qualified mechanic, either on or off the project.

These items include:

- 1. Vehicles:
 - o Adequate vision (mirrors, windshield, etc.), windshield wipers and blades
 - Brakes including emergency brakes
 - o Fan belts
 - o Headlights
 - o Taillights
 - o Brake lights
 - o Signal lights
 - o Hydraulic lifts
 - o Power steering
 - Tires including spare Adequate jacks and lug wrench
 - o Horn
 - o Air equipment
 - o Seat belts

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2. Equipment:

- Adequate vision (mirrors, windshields, etc.)
- o Windshield wipers and blades
- Horn or warning bell (as required)
- Air equipment
- Lights front, rear, stop, boom, etc.
- o Emergency brakes
- Brakes, including winch brakes, etc.
- Generator, starter, etc.
- Booms, welds, bolts, etc.
- Hydraulic hoses, couplings, pumps
- o Fan belts
- D. Motors and engines shall be shut off during fueling or maintenance operations. Electric-driven equipment shall be installed with provision for tagging and/or locking out the controls while under repair.

Other Safety Requirements for Vehicles and Equipment

- A. Fire extinguishers will be placed on all vehicles or equipment and inspected weekly. Monthly inspection and service records will be maintained in the project office.
- B. All cab glass shall be safety glass, or equivalent, that introduces no visible distortion affecting the safe operation of any vehicle or equipment covered by this part.
- C. A safety tire rack, cage, or equivalent protection shall be provided and used when inflating, mounting, or dismounting tires installed on split rims, or rims equipped with locking rings or similar devices.
- D. Heavy machinery, equipment, or parts thereof, which are suspended or held aloft by use of slings, hoists, or jacks shall be substantially blocked or cribbed to prevent falling or shifting before employees are permitted to work under or between them. Bulldozer and scraper blades, end-loader buckets, dump bodies, and similar equipment shall be either fully lowered or blocked when being repaired or when not in use. All controls shall be in a neutral position, with the engines stopped and brakes set, unless work being performed requires otherwise.
- E. Trucks with dump bodies should be equipped with positive means of support, permanently attached, and capable of being locked in position to prevent accidental lowering of the body while maintenance or inspection work is being done.
- F. Operating levers, controlling hoisting or dumping devices on haulage bodies, should be equipped with a latch or other device which will prevent accidental starting or tripping of the mechanism.
- G. Trip handles for tailgates of dump trucks and heavy equipment shall be so arranged that, in dumping, the operator will be in the clear.

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Material Handling Equipment

- A. No one should be permitted in the cab with the operator unless a seat for the rider is provided.
- B. When not in operation, the clam or bucket should be either blocked or grounded.
- C. The master clutch must be disengaged when the operator leaves the cab.
- D. Operators loading and/or unloading equipment or material from vehicles with drivers must also be responsible to see that drivers are safe in a protected cab or that they step out of vehicles to a safe area.
- E. The equipment must be on solid foundation such as solid ground, mats or heavy planking; outriggers are to be fully extended.
- F. When coupling a tractor to other equipment, everyone should be clear of the space between the units. The machine units should be stopped, transmission in neutral and brakes set.
- G. When equipment is unattended, power must be shut off, brakes set, blade landed (grounded) and shift lever in neutral.
- H. Equipment must remain in gear to control speed and the brakes then applied. If the brakes fail, the bowl, blade or bucket should be dragged or dropped.
- I. The scraper bowl or dozer/grader blades should always be securely blocked when cutting edges are being replaced.

Safe Operating Procedures for Cranes and Derricks

General

- 1. Crane usage shall comply with the manufacturer's specifications and limitations where available.
- 2. Only approved standard hand signals for crane, derrick and boom equipment shall be used. (See Exhibit 30-2). A copy of these hand signals shall be posted at the operating position of each piece of equipment.
- 3. The manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks must be complied with. Where manufacturer's specifications are not available, the limitations assigned to the equipment shall be based on the determinations of a qualified expert competent in this field and such determinations will be appropriately documented and recorded. Attachments used with cranes shall not exceed the capacity, rating, or scope recommended by the manufacturer.
- 4. Rated load capacities, recommended operating speeds, special hazard warnings should be conspicuously posted on all equipment. Instruction or warnings shall be visible to the operator while he or she is at the control station.
- 5. All machinery and equipment should be inspected by a competent person prior to each use. Any deficiencies shall be repaired, or defective parts replaced, before continued use.

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- 6. A thorough, annual inspection of the hoisting machinery shall be made by a competent person. A record of the dates and results of inspections for each hoisting machine and piece of equipment must be maintained. A similar inspection shall be made before being put into operation when equipment is moved from one project to another.
- 7. Wire rope safety factors shall be in accordance with ANSI B30.5.
- 8. Belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or other moving parts of equipment shall be guarded if such parts are exposed to contact by employees, or otherwise create a hazard.
- 9. Accessible areas within the swing radius of the rear of the rotating superstructure of the crane, either permanently or temporarily mounted, shall be barricaded in such a manner as to prevent an employee from being struck or crushed by the crane.
- 10. All exhaust pipes shall be guarded or insulated in areas where contact by employees is possible in the performance of normal duties.
- 11. All windows in cabs shall be of safety glass, or equivalent, that introduces no visible distortion.
- 12. Where necessary for rigging or service requirements, a ladder, or steps, shall be provided to give access to a cab roof.
- 13. Guardrails, handholds, and steps shall be provided on cranes for easy access to the car and cab. Platforms and walkways should have anti-skid surfaces.
- 14. Fuel tank filler pipes shall be located in such a position, or protected in such manner, as to not allow spill or overflow to run onto the engine, exhaust or electrical equipment of any machine being fueled.
- 15. An accessible fire extinguisher of 5BC rating, or higher, shall be available at all operator stations or cabs of equipment.
- 16. Except where electrical distribution and transmission lines have been de- energized and visibly grounded at point of work or where insulating barriers, not a part of or an attachment to the equipment or machinery, have been erected to prevent physical contact with the lines, equipment or machines shall be operated proximate to power lines only in accordance with the following:
 - For lines rated 50 kV, or below, minimum clearance between the lines and any part of the crane or load shall be 10 feet.
 - For lines rated over 50 kV, minimum clearance between the lines and any part of the crane must be 10 feet plus one foot for each additional 30 kV.

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- 17. All jibs should have positive stops to prevent their movement of more than 5 degrees above the straight line of the jib and boom on conventional type crane booms. The use of cable type belly slings does not constitute compliance with this rule.
- 18. Crawler, truck, or locomotive cranes in use should meet the applicable requirements for design, inspection, construction, testing, maintenance and operation as prescribed in the ANSI B30.5, Safety Code for Crawler, Locomotive and Truck Cranes.
- 19. Cranes mounted on rail tracks shall be equipped with limit switches limiting the travel of the crane on the track and stops or buffers at each end of the tracks.
- 20. Except for floor-operated cranes, a gong or other effective audible warning signal shall be provided for each crane equipped with a power traveling mechanism.
- 21. It is the responsibility of the project manager to insure the equipment is in serviceable condition and competently manned so as to afford safe operations at all times.

Operator and Employee (crane operator and supervisor responsibilities).

- 1. Always work crane on firm level ground or cribbing.
- 2. Know the weight of the load to be lifted and make allowance for safety factor in rigging.
- 3. Signals:
- Only authorized personnel are to act as flaggers.
- Make sure operator and flagger understand the signals to be used, Exhibit <u>30-2.</u>
- Give clear signals to operator.
- Make sure operator can see flagger at all times.
- Only one person is to give signals to the operator at any one time.
- 4. The capacity of the crane varies with the boom radius. Check the boom charts in crane cab for correct boom radius and measure if in doubt. (Boom radius is measured from crane center pin out to the load being lifted.
- 5. Set all outriggers on motor crane when making a heavy lift.
 - 1. Never pick near capacity loads on the strong side of a crane and then attempt to swing to the weak side.
 - 2. Check brakes before making a heavy lift by picking load and checking it close to the ground.
 - **3**. Use sufficient tag lines of adequate size and length on all loads.
 - 4. Before lifting, check to see that no one is in a position to be struck or crushed by the motion of the load as it is picked. Anticipate the outward motion of the boom as it takes up the load.

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- **5.** Always lift with a balanced load.
- 6. Always watch crane closely when booming out with a load.
- 7. Keep the load and all parts of the crane 15 feet from all electric lines.
- 8. Provide barricades and warning signs to prevent exposure of passersby to the hazards of crane work.
- **9**. Employees working with crane are to stay out from under boom whenever possible. Never hoist or swing loads over other workers. Extend guardrails on crane or barricade the swing radius when crane is spotted.
- 10. Stay clear of crane. (Anticipate hazard of the swinging crane cab.)
- 11. Keep the boom directly over the load while making a lift. Do not allow boom to lean or strike against other objects. If objects must be moved from the side of the crane, use snatch blocks and rollers to get them into proper lifting position.
- 12. Keep hands out of pinch points when holding hook or slings while slack is being taken up.
- 13. Check all loads to be sure they are properly hooked on before they are picked up.
- 14. When walking a crane with the boom down, keep blocks up to the boom, and keep rigging off the hooks.
- 15. Cables, chokers and accessories should be inspected frequently to insure their safe working condition.
- 16. The operator is not to leave the controls while a load is suspended.
- 17. No oiling or repairs are to be permitted while the equipment is in operation.
- 18. Riding the hook or load is forbidden.
- 19. In cases where the operator is not satisfied that the job is being performed safely, the crane is to be stopped and the operator is to notify the supervisor immediately.
- 20. Single lift methods <u>only</u> will be allowed for steel erection purposes; the practice of moving tandem/multiple loads by crane (Christmas treeing) exposes employees to dangers of overhead, suspended loads and is prohibited.

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Exhibit 30-2

STANDARD HAND SIGNALS FOR CONTROLLING CRANE OPERATIONS



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Responsibilities of the Crane Operator

The issue of responsibility for the various aspects of a crane operation is too often unclear until a serious accident occurs and a court of law decides where the responsibility belongs.

Safe crane operations require attention from both site supervision and the crane operator. Certain responsibilities are solely the operator's and are under his direct control. **THEREFORE, THE OPERATOR SHALL HAVE THE DUTY TO REFUSE TO HANDLE THE LOAD UNTIL SAFETY HAS BEEN ASSURED.**

Because crane operations are complex and differ from one job to the next, it is unlikely a single set of guidelines can cover all the parameters involved. However, the following list can be applied to most situations.

The operator is generally responsible for:

- 1. Being in a physical, mental and emotional condition to have full control of the machine; and shall be available for a physical exam to meet minimal DOT standards involving drug and alcohol testing.
- 2. Knowing the particular crane model and configuration well enough to safely perform the work, to understand its functions and limitations, as well as its operating characteristics.
- 3. Being familiar with the content of the crane's operating manual.
- 4. Knowing how to use the crane's load chart and applying it to all configurations.
- 5. The operator must understand the correct application of all notes and warnings.
- 6. Informing supervision and/or the owner of problems when they develop.
- 7. Inspecting the crane and performing routine maintenance regularly, as prescribed by the owner and/or manufacturer; keeping appropriate records of inspections, maintenance and work done on the crane in the field.
- 8. Supervising the oiler and/or apprentice in their duties.
- 9. Being aware of any site condition that could affect the crane operation and check that the site is adequately prepared for the crane. Being aware of the presence of power lines or other electrical hazards and operating the crane in such a manner as to assure that the crane, hoist rope or load will not come closer to a power line than allowed in .29 CFR 1926.550 (OSHA).
- 10. Reviewing the planned operation and lift requirements with site supervision.
- 11. Knowing how to identify the load and rigging weight, and determine where the load is to be placed and verify the radii.
- 12. Using the load chart to ensure the crane has sufficient net capacity for the lift.
- 13. Determining the number of parts of line required to the lift.
- 14. Ensuring the selected boom, jib and crane configuration will safely handle the load within the site and lift conditions.

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- 15. Knowing the procedures and techniques for proper assembling, setting up and rigging the crane within the manufacturer's approved configuration.
- 16. Considering the factors that might reduce the crane's capacity and inform supervision of the need to make appropriate adjustments.
- 17. Understanding load rigging procedures and advising the responsible person if a doubt exists as to the adequacy of the rigging.

18. SIGNALS AND SIGNALING

- Knowing who the signal person is and how to communicate with them for the lift.
- Knowing standard hand signals as specified 29 CFR 1926.550 (OSHA)
- 19. Operating the crane in a smooth, controlled and safe manner.
- 20. Knowing how to move the crane safely under its own power.
- 21. Shutting down and securing the crane when it is to be unattended.
- 22. Maintaining the skills and knowledge necessary to safely operate the crane by attending and participating in prescribed training programs.

Responsibilities of Management/Supervision

The issue of responsibility for the various aspects of a crane operation is too often unclear until a serious accident occurs and a court of law decides where the responsibility belongs.

Safe crane operations require attention from both site supervision and the crane operator. Certain responsibilities are solely the operator's and are under their direct control. **THEREFORE, THE OPERATOR SHALL HAVE THE DUTY TO REFUSE TO HANDLE THE LOAD UNTIL SAFETY HAS BEEN ASSURED.**

Because crane operations are complex and differ from one job to the next, it is unlikely a single set of guidelines can cover all the parameters involved. However, the following list can be applied to most situations.

Site supervision and management/supervision is generally responsible for:

- 1. Knowing the "Responsibilities of the Crane Operator;" and, the "Responsibilities of General Management."
- 2. Ensuring the operator is physically qualified, well trained, experienced and competent to operate the crane to which they are assigned, and for the task involved.
 - Ensuring the operator knows how to use the load chart and is capable of determining the crane's net capacity for all permissible operating configurations.
 - Ensuring the operator is aware of their responsibilities.
 - Ensuring the operator is capable of carrying out their responsibilities.

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- 3. Providing a well-prepared working area for the crane before it arrives on the job. This may involve ensuring that:
 - There is adequate site access and usability.
 - There is room to erect and/or extend the boom.
 - Blocking is, or will be made, available to support the boom while it is being assembled and dismantled.
 - Operating locations are level and compacted. Blocking is, or will be made, available for outrigger support.
 - Supporting surfaces are suitable to handle the expected loads.
 - Suitable mats or cribbing are available if the ground is soft.
 - Ensuring there is adequate room for extension of crawlers, outriggers, counterweights and attachments.
 - Barricade material is available to barricade the tail swing radius.
- 4. Determining the correct load weight and operating radius and informing the operator.
- 5. Ensuring the crane is appropriate for the task to be completed.
 - Providing a crane in proper condition and properly maintained.
 - Providing a crane including necessary parts/components to satisfy the configuration and capacity requirements.
 - Providing a crane complete with applicable rating chart, operator's manual, control identification labels, hand-signal placard, electrical hazard warning placard and warning labels.
- 6. Ensuring a thorough crane maintenance and inspection program is established and maintained. This will involve developing records that facilitate the reporting of repair and maintenance work needed and completed on the crane.
- 7. Knowing which local, state and federal rules and regulations apply to the safe operation of the crane.
- 8. Locating and communicating site hazards and restrictions, to the operator, such as electric power lines and piping (above and below ground).
- 9. Restricting access to a work area.
- 10. Reviewing planned operations. The review should include such conditions as working height, boom length, load radius, quadrant of operation, load weight, load dimensions and center of gravity.

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- 11. Ensuring that the signal persons are competent and capable of directing the crane operator. Communicating at the site with operator, crew and signal person.
- 12, Knowing the preparation of the crane for loading or unloading onto trailers, railcars, and barges, as needed.
- 13. Knowing load rigging requirements and procedures.
- 14. Ensuring the load is properly rigged.
- 15. Knowing the unique differences in operations when working under various operating conditions, such as:
 - Multi-crane lifts;
 - Suspended personnel platforms;
 - Clamshell/dragline operations;
 - Pile driving and extraction;
 - Concrete operations;
 - Demolition operations;
 - Barge/Marine operations;
 - Magnet operations; and
 - Multiple drum operations.
- 16. Knowing how to verify weight and center of gravity of the load.
- 17. Providing ongoing training and upgrading programs.
- 18. Knowing limitations of protective measures against electrical hazards such as:
 - Grounding;
 - Proximity warning devices;
 - Insulated links;
 - Boom cages; and
 - Proximity to electric power lines, radio and microwave structures

	Pre-Shif	t Drill Rig Inspection	
Equipment Number:		Date:	Hours:
	Engine Oil & Fluids Fan Belts Radiator Level Radiator Hoses Battery Condition Battery Terminals Battery Cables Wiring Motor Mounts Transmission/Oil Drive Shaft U-Joints Hydraulics/Level Fuel Level Clean Cab Horn	Fires Extinguisher Freeline Cable Personnel Hoist Personnel Hoist Cable Hoist Cable Crowd Cable Inner Bar Cable Clutches Brake Band Sprockets Drawworks Hoses/Leaks Kelley Head/Slides Derrick Kelley Bars Rotary Box/Oil	
Remarks:	Travel/Swing Alarm Glass Gauges Lights	Chains-Replace, Adjust Crawler Base Lube Job Guards in Place	
Inspected By:			



New Employee Orientation

Section 25

ORILLING	Drilling Service	Section No.: 25
Down to Earth	Safety and Health Program	Initial Issue Date: 11/2014
TOPIC: New Employee Orientation		Revision Date:
Authority: Mark Murphy	Issuing Dept.: Safety	Page: 1 of 4

Procedure

All new employees shall be required to go through a safety orientation covering safety prevention, procedures and response measures. Safety orientation sets the tone for safety awareness and is an important element of Drilling Service Company's Safety Program.

New Hire Safety Orientations will be held at Drilling Service Company's office as needed.

During and at the conclusion of orientations, new employees will be encouraged to ask questions to make sure that the safety procedures are fully understood. The new employee will be asked some questions pertaining to job safety to confirm that he/she understands the safety goals of the company. A Safety Orientation Checklist shall be completed and signed by the individual(s) who conducted the orientation and the new employee.

NOTE: The new employee(s) will be encouraged throughout the orientation to ask any safety questions that may arise relating to his/her work. Other employees who are not considered "new employees" will receive safety orientation where necessary.

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Safety Orientation Checklist

The Safety Orientation Checklist is used to document safety training provided to all new and reassigned Drilling Service Company employees. Safety Orientation is intended to familiarize you with Drilling Service Company's Safety Program and to provide you with the information to help you recognize and avoid unsafe conditions in your workplace. This checklist includes all safety items to be covered during safety orientation. Employees are to check off each topic as it is covered.

Employee Name_____ Date of Training______

Position_____ Date of Hire_____

General	Check	Welding and Cutting	Check
Housekeeping requirements.		Handling and using compressed gas cylinders.	
Where to locate mandatory posting requirements including emergency phone numbers.		Compressed gas cylinder storage requirements.	
Where to locate company safety program, hazard communication program, and SDS's.		Welding safety.	
Company hazard communication program content, including material safety data sheets.		Electric	
Employee responsibility for reporting accidents, near misses, and injuries.		Extension cord types acceptable to use at construction sites.	
Procedures to be taken in the event of a property damage site emergency.		Inspecting extension cords.	
Procedures to be taken in the event a person is injured at the jobsite.		Ground fault circuit interrupters.	
Company drug and alcohol policy.		Construction electrical safety requirements.	
Personal Protective Equipment	Check	Tools	Check
--	-----------------	---	-------
Fire protection requirements for protected building areas.		Using guards on power tools.	
Fire protection requirements for		Inspecting tools to insure they	
fuel storage areas and propane		are free of damage or defects.	
Propane storage requirements.		Training requirements for using powder-actuated tools.	
Hot works permit requirements.	YES NO NA		
Fall Protection	Check	Excavations	Check
Pre-planning for fall hazards.		Underground electrical hazards. "Call be for you Dig"	
Construction safety requirements		Protection of the public from excavated areas	
Guardrail erection and		Competent person	
maintenance.		requirements for	
		excavations.	
Installing covers on floor holes.		Working in excavations and the hazards associated	
Use of fall arrest equipment.	YES NO NA	Safe access requirements.	
Fall protection plans.	YES NO NA	Construction safety requirements for excavations	
STD 3-0.1A - Guidelines for Residential Fall Protection.	YES NO NA	Confined space hazards	
Motor Vehicles and Heavy Equipment	Check	Ladders	
The use of seat belts while operating company equipment or vehicles.		Electrical hazards associated with the use of ladders	
Safety requirements while fueling company equipment or vehicles.		Determining the right ladder for the job.	
Recharging batteries and the use of		Using portable extension	
jumper cables.		ladders to access upper levels	
Inspecting equipment daily to insure horn, back-up alarm, and brakes are in good working condition.		Using step ladders properly	
Certification requirements for	YES	Improper use of portable	
operating lulls, JLG's, and similar	NO	and extension ladders	
equipment.	NA		

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When training is finished, employees are to complete the statement at the end of the checklist confirming attendance at a safety orientation training session. They are also encourage to make any comments pertaining to the safety training orientation or if they have any safety concerns they wish to discuss with management. Safety orientation checklists will be maintained at the main office. In some cases, copies of the safety orientation checklists may be provided at the jobsite.

l,	, understand fully all the items discussed during my safety orientation.
Signature of Employee:	Date:

Signature of Trainer:	Date:

Employee Comments:



OSHA Recordkeeping

Section 26

ORILLING	Drilling Service	Section No.: 26
Down to Earth.	Safety and Health Program	Initial Issue Date: 11/2014
TOPIC: OSHA Recordkeeping		Revision Date:
Authority: Mark Murphy	Issuing Dept.: Safety	Page: 1 of 13

RECORDING CRITERIA (OSHA Reference 1904.4)



For specific OSHA Recordkeeping forms (300 Logs, etc.) visit www.osha.gov

OSHA Forms for Recording Work-Related Injuries and Illnesses

What's Inside...

In this package, you'll find everything you need to complete OSHA's Log and the Summary of Work-Related Injuries and Illnesses for the next several years. On the following pages, you'll find:

- An Overview: Recording Work-Related Injuries and Illnesses General instructions for filling out the forms in this package and definitions of terms you should use when you classify your cases as injuries or illnesses.
- How to Fill Out the Log An example to guide you in filling out the Log properly.
- Log of Work-Related Injuries and Hinesses — Several pages of the Log (but you may make as many copies of the Log as you need.) Notice that the Log is separate from the Summary.



Summary of Work-Related Injuries and Illnesses — Removable Summary pages for easy posting at the end of the year. Note that you post the Summary only, not the Log.



- Worksheet to Help You Fill Out the Summary A worksheet for figuring the average number of employees who worked for your establishment and the total number of hours worked.
- OSHA's 301: Injury and Illness Incident Report — Several copies of the OSHA 301 to provide details about the incident. You may make as many copies as you need or use an equivalent form.



Take a few minutes to review this package. If you have any questions, visit us online at www.osha. gov OT call your local OSHA office. We'll be happy to help you.

An Overview: Recording Work-Related Injuries and Illnesses

The Occupational Safety and Health (OSH) Act of 1970 requires certain employers to prepare and maintain records of work-related injuries and illnesses. Use these definitions when you classify cases on the Log. OSHA's record keeping regulation (see 29 CFR Part 1904) provides more information about the definitions below.

The Log of Work-Related Injuries and Illnesses (Form 300) is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the Log to record specific details about what happened and how it happened. The Summary — a separate form (Form 300A) — shows the totals for the year in each category. At the end of the year, post the Summary in a visible location so that your employees are aware of the injuries and illnesses occurring in their workplace.

Employers must keep a *Log* for each establishment or site. If you have more than one establishment, you must keep a separate *Log* and *Summary* for each physical location that is expected to be in operation for one year or longer.

Note that your employees have the right to review your injury and illness records. For more information, see 29 Code of Federal Regulations Part 1904.35, Employee Involvement.

Cases listed on the Log of Work-Related Injuries and Illnesses are not necessarily eligible for workers' compensation or other insurance benefits. Listing a case on the Log does not mean that the employer or worker was at fault or that an OSHA standard was violated.

When is an injury or illness considered work-related?

An injury or illness is considered work-related if an event or exposure in the work environment caused or contributed to the condition or significantly aggravated a preexisting condition. Work-relatedness is presumed for injuries and illnesses resulting from events or exposures occurring in the workplace, unless an exception specifically applies. See 29 CFR Part 1904.5(b)(2) for the exceptions. The work environment includes the establishment and other locations where one or more employees are working or are present as a condition of their employment. See 29 CFR Part 1904.5(b)(1).

Which work-related injuries and illnesses should you record?

Record those work-related injuries and illnesses that result in:

- ▼ death,
- ▼ loss of consciousness,
- ▼ days away from work,
- ▼ restricted work activity or job transfer, or
- ▼ medical treatment beyond first aid.

You must also record work-related injuries and illnesses that are significant (as defined below) or meet any of the additional criteria listed below.

You must record any significant workrelated injury or illness that is diagnosed by a physician or other licensed health care professional. You must record any work-related case involving cancer, chronic irreversible disease, a fractured or cracked bone, or a punctured eardrum. See 29 CFR 1904.7.

What are the additional criteria?

You must record the following conditions when they are work-related:

- any needlestick injury or cut from a sharp object that is contaminated with another person's blood or other potentially infectious material;
- any case requiring an employee to be medically removed under the requirements of an OSHA health standard;
- tuberculosis infection as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional after exposure to a known case of active tuberculosis.

What is medical treatment?

Medical treatment includes managing and caring for a patient for the purpose of combating disease or disorder. The following are not considered medical treatments and are NOT recordable:

- visits to a doctor or health care professional solely for observation or counseling;
- diagnostic procedures, including administering prescription medications that are used solely for diagnostic purposes; and
- any procedure that can be labeled first aid. (See below for more information about first aid.)

What do you need to do?

- Within 7 calendar days after you receive information about a case, decide if the case is recordable under the OSHA record keeping requirements.
- Determine whether the incident is a new case or a recurrence of an existing one.
- Establish whether the case was workrelated.
- If the case is recordable, decide which form you will fill out as the injury and illness incident report.

You may use OSHA's 301: Injury and Illness Incident Report or an equivalent form. Some state workers compensation, insurance, or other reports may be acceptable substitutes, as long as they provide the same information as the OSHA 301.

How to work with the Log

- Identify the employee involved unless it is a privacy concern case as described below.
- Identify when and where the case occurred.
- Describe the case, as specifically as you can.
- Classify the seriousness of the case by recording the most serious outcome associated with the case, with column J (Other recordable cases) being the least serious and column G (Death) being the most serious.
- Identify whether the case is an injury or illness. If the case is an injury, check the injury category. If the case is an illness, check the appropriate illness category.

What is first aid?

If the incident required only the following types of treatment, consider it first aid. Do NOT record the case if it involves only:

- using non-prescription medications at nonprescription strength;
- ▼ administering tetanus immunizations;
- cleaning, flushing, or soaking wounds on the skin surface;
- ✓ using wound coverings, such as bandages, BandAids™, gauze pads, etc., or using SteriStrips™ or butterfly bandages.
- ▼ using hot or cold therapy;
- using any totally non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc.;
- using temporary immobilization devices while transporting an accident victim (splints, slings, neck collars, or back boards).
- drilling a fingernail or toenail to relieve pressure, or draining fluids from blisters;
- ▼ using eye patches;
- using simple irrigation or a cotton swab to remove foreign bodies not embedded in or adhered to the eye;
- using irrigation, tweezers, cotton swab or other simple means to remove splinters or foreign material from areas other than the eye;
- ▼ using finger guards;
- ▼ using massages;
- ▼ drinking fluids to relieve heat stress

How do you decide if the case involved restricted work?

Restricted work activity occurs when, as the result of a work-related injury or illness, an employer or health care professional keeps, or recommends keeping, an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred.

How do you count the number of days of restricted work activity or the number of days away from work?

Count the number of calendar days the employee was on restricted work activity or was away from work as a result of the recordable injury or illness. Do not count the day on which the injury or illness occurred in this number. Begin counting days from the day <u>after</u> the incident occurs. If a single injury or illness involved both days away from work and days of restricted work activity, enter the total number of days for each. You may stop counting days of restricted work activity or days away from work once the total of either or the combination of both reaches 180 days.

Under what circumstances should you NOT enter the employee's name on the OSHA Form 300?

You must consider the following types of injuries or illnesses to be privacy concern cases:

 an injury or illness to an intimate body part or to the reproductive system,

- an injury or illness resulting from a sexual assault,
- ▼ a mental illness,
- a case of HIV infection, hepatitis, or tuberculosis,
- a needlestick injury or cut from a sharp object that is contaminated with blood or other potentially infectious material (see 29 CFR Part 1904.8 for definition), and
- other illnesses, if the employee independently and voluntarily requests that his or her name not be entered on the log.

You must not enter the employee's name on the OSHA 300 Log for these cases. Instead, enter "privacy case" in the space normally used for the employee's name. You must keep a separate, confidential list of the case numbers and employee names for the establishment's privacy concern cases so that you can update the cases and provide information to the government if asked to do so.

If you have a reasonable basis to believe that information describing the privacy concern case may be personally identifiable even though the employee's name has been omitted, you may use discretion in describing the injury or illness on both the OSHA 300 and 301 forms. You must enter enough information to identify the cause of the incident and the general severity of the injury or illness, but you do not need to include details of an intimate or private nature.

What if the outcome changes after you record the case?

If the outcome or extent of an injury or illness changes after you have recorded the case, simply draw a line through the original entry or, if you wish, delete or white-out the original entry. Then write the new entry where it belongs. Remember, you need to record the most serious outcome for each case.

Classifying injuries

An injury is any wound or damage to the body resulting from an event in the work environment.

Examples: Cut, puncture, laceration, abrasion, fracture, bruise, contusion, chipped tooth, amputation, insect bite, electrocution, or a thermal, chemical, electrical, or radiation burn. Sprain and strain injuries to muscles, joints, and connective tissues are classified as injuries when they result from a slip, trip, fall or other similar accidents.

Classifying illnesses

Skin diseases or disorders

Skin diseases or disorders are illnesses involving the worker's skin that are caused by work exposure to chemicals, plants, or other substances.

Examples: Contact dermatitis, eczema, or rash caused by primary irritants and sensitizers or poisonous plants; oil acne; friction blisters, chrome ulcers; inflammation of the skin.

Respiratory conditions

Respiratory conditions are illnesses associated with breathing hazardous biological agents, chemicals, dust, gases, vapors, or fumes at work.

Examples: Silicosis, asbestosis, pneumonitis, pharyngitis, rhinitis or acute congestion; farmer's lung, beryllium disease, tuberculosis, occupational asthma, reactive airways dysfunction syndrome (RADS), chronic obstructive pulmonary disease (COPD), hypersensitivity pneumonitis, toxic inhalation injury, such as metal fume fever, chronic obstructive bronchitis, and other pneumoconioses.

Poisoning

Poisoning includes disorders evidenced by abnormal concentrations of toxic substances in blood, other tissues, other bodily fluids, or the breath that are caused by the ingestion or absorption of toxic substances into the body.

Examples: Poisoning by lead, mercury, cadmium, arsenic, or other metals; poisoning by carbon monoxide, hydrogen sulfide, or other gases; poisoning by benzene, benzol, carbon tetrachloride, or other organic solvents; poisoning by insecticide sprays, such as parathion or lead arsenate; poisoning by other chemicals, such as formaldehyde.

All other illnesses

All other occupational illnesses.

Examples: Heatstroke, sunstroke, heat exhaustion, heat stress and other effects of environmental heat; freezing, frostbite, and other effects of exposure to low temperatures; decompression sickness; effects of ionizing radiation (isotopes, x-rays, radium); effects of nonionizing radiation (welding flash, ultra-violet rays, lasers); anthrax; bloodborne pathogenic diseases, such as AIDS, HIV, hepatitis B or hepatitis C; brucellosis; malignant or benign tumors; histoplasmosis; coccidioidomycosis.

When must you post the Summary?

You must post the *Summary* only — not the *Log* — by February 1 of the year following the year covered by the form and keep it posted until April 30 of that year.

How long must you keep the Log and Summary on file?

You must keep the *Log* and *Summary* for 5 years following the year to which they pertain.

Do you have to send these forms to OSHA at the end of the year?

No. You do not have to send the completed forms to OSHA unless specifically asked to do so.

How can we help you?

If you have a question about how to fill out the Log,

visit us online at www.osha.gov or

call your local OSHA office.

Optional Calculating Injury and Illness Incidence Rates

What is an incidence rate?

An incidence rate is the number of recordable injuries and illnesses occurring among a given number of full-time workers (usually 100 fulltime workers) over a given period of time (usually one year). To evaluate your firm's injury and illness experience over time or to compare your firm's experience with that of your industry as a whole, you need to compute your incidence rate. Because a specific number of workers and a specific period of time are involved, these rates can help you identify problems in your workplace and/or progress you may have made in preventing workrelated injuries and illnesses.

How do you calculate an incidence rate?

You can compute an occupational injury and illness incidence rate for all recordable cases or for cases that involved days away from work for your firm quickly and easily. The formula requires that you follow instructions in paragraph (a) below for the total recordable cases or those in paragraph (b) for cases that involved days away from work, *and* for both rates the instructions in paragraph (c).

(a) To find out the total number of recordable injuries and illnesses that occurred during the year, count the number of line entries on your OSHA Form 300, or refer to the OSHA Form 300A and sum the entries for columns (G), (H), (I), and (J).

(b) To find out the number of injuries and illnesses that involved days away from work, count the number of line entries on your OSHA Form 300 that received a check mark in column (H), or refer to the entry for column (H) on the OSHA Form 300A. (c) The number of hours all employees actually worked during the year. Refer to OSHA Form 300A and optional worksheet to calculate this number.

You can compute the incidence rate for all recordable cases of injuries and illnesses using the following formula:

Total number of injuries and illnesses ÷ Number of hours worked by all employees × 200,000 hours = Total recordable case rate

(The 200,000 figure in the formula represents the number of hours 100 employees working 40 hours per week, 50 weeks per year would work, and provides the standard base for calculating incidence rates.)

You can compute the incidence rate for recordable cases involving days away from work, days of restricted work activity or job transfer (DART) using the following formula:

(Number of entries in column H + Number of entries in column I) ÷ Number of hours worked by all employees × 200,000 hours = DART incidence rate

You can use the same formula to calculate incidence rates for other variables such as cases involving restricted work activity (column (I) on Form 300A), cases involving skin disorders (column (M-2) on Form 300A), etc. Just substitute the appropriate total for these cases, from Form 300A, into the formula in place of the total number of injuries and illnesses.

What can I compare my incidence rate to?

The Bureau of Labor Statistics (BLS) conducts a survey of occupational injuries and illnesses each year and publishes incidence rate data by various classifications (e.g., by industry, by employer size, etc.). You can obtain these published data at www.bls.gov or by calling a BLS Regional Office.

Total number of recordable injuries and illnesses in your establishment		Total recordable cases
÷	X 200,000 =	incidence rate
Hours worked by all your employees		
Total number of recordable injuries and illnesses with a checkmark in column H or column I		
		DART incidence rate
+	X 200,000 =	

How to Fill Out the Log

The Log of Work-Related Injuries and Illnesses is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the Log to record specific details about what happened and how it happened.

If your company has more than one establishment or site, you must keep separate records for each physical location that is expected to remain in operation for one year or longer.

We have given you several copies of the Log in this package. If you need more than we provided, you may photocopy and use as many as you need.

The Summary — a separate form shows the work-related injury and illness totals for the year in each category. At the end of the year, count the number of incidents in each category and transfer the totals from the Log to the Summary. Then post the Summary in a visible location so that your employees are aware of injuries and illnesses occurring in their workplace.

You don't post the Log. You post only the Summary at the end of the year.

e prof e zwo i	record information about ever ay from work, or medical mean lessional. You must also record ines for a single case if you ne	ny work-related death : ment beyond first aid. d work-related injuries eed to: You must comp	and about every Ibu must also re and illnesses th plete an Injuny ar	work-related injury or illness i cord significant work-related at meet any of the specific re id illness incident Report (OS	shar involves loss of consciousness. restric injuries and illnesses that are diagnosed b cording criteria listed in 29 CFR Part 1804. SHA Form 301) or equivalent form for each	ted work activity y a physician or i 5 through 7904.1 injury or illness n	orjob san licensed he 12. Reel free ecorded on	ster sath : no : mis		Castinitest ner	xyz c	on powed	And an Itil	Lerve
n dys doni	ou'le not sure whether a case Ify the person	is recordable, call you	Poporibe f	ice for help. No case			Classif	y the case		as antimer				
(A) lase	(B) Employee's name	(C) Joh title leg: Willer)	(D) Date of injury or onset of illness	(E) Where the event occurred (e.g. Leading doch with end)	(F) Describe lajory or illuses, parts of hot and object/ substance that directly injury arounds person ill (e.g. Second degree barro on right freezen fr	iy alfbored, red m confilmetersk)	Using the most	ese lour cate d sorlaus resu Resultant	garles, sheak OM At for each cases	Co joh	Aray hos	Check the " choose one	tjury* colum type of illow (M)	41
1	Mark Bagin	Welder	5 / 25	basement	fracture, left arm and left leg, fell fra	m ladder	(G)	(H)		(K) 12 um	(L) 15 days	1 (P)		NO I
2	Shana Alexander	Foundry man	7/2	pouring deck	polyoning from lead fumes				0 0	des	30 ders		0 1	0
	Sam Sander	Electrician	8.15	2nd floor common	haken left foat fell over hor			đ	0 0	7 cays	21) days	10	. 1	
4	Ralph Borrella	Laborer	9 /17	nackaging den	Back steain lifting beam		2	- 10		cays .	3 days	1 0	o b	0
5	Jarrol Daniels	<u>Machine apr</u>	10/23	production floor	dua in eye		20			ikys	daya daya			0
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		Be as sp can use more roo	ecific as j two lines om.	Revise th progress serious t the case	e log if the injury or illnes es and the outcome is mo han you originally recorde Cross out, erase, or whit al outer	s re d for e-out	Choos catego by rec outco colum cases seriou being	e ONE of ories. Cli ording the me of the in J (Oth) being t is and co the mos	d these assily the c he most sei e case, with er recordab he least blumn G (Be t serious.	ase ious ide eath)	N. G	ate who ase inv jury ar	ether th olves a an illne	ne n ess.

form. If you're not sure whether a case is recordable, call your local OSHA office for help.

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer,

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



Occup

Form approved OMB no. 1218-0176

days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health	
care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to	Establishment name
use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this	
	02

Iden	tify the person		Describe t	he case		Class	ify the ca	se							
(A) Case	(B) Employee's name	(C) Job title	(D) Date of injury	(E) Where the event occurred	(F) Describe injury or illness, parts of body affected,	Using the mo	these four c ost serious n	alegories, cl esult for eac	heck ONLY h case:	Enter the nu days the inj ill worker w	umber of ured or as:	Check	the "l e one l	injury" type o	column fillness:
80,		(e.g., Welder)	or onset of illness	(e.g., Loading dock north end)	and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	Doeth	Days away from work	Annalme Job transfer or restriction	d at work Other record- able cases	On job transfer or restriction	Away from work	(M) (mitt	Sen daorde	Resperatory condition	Museum
			1			(G)	(H)	0	(0)	(K) days	(L) days	(1)	(2)	(3)	(4) (5
_										days	days				
_		_	- / month/day							days	days				
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Public re the instru	porting burden for this collection of	information is estimated to	average 14 minutes p	er response, indukling time to review	Page totals Be sure to transfer the	ese totals	to the Summary	page (Form 30	00A) before you p	ostit	-	lajury	a disorder	condition	All other

Public reporting burden for this collection of information is estimated to average 14 minutes per response, induking time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless is displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data nollection, contact: US Department of Labor, OSHA Office of Statistics, Room N.3644, 200 Constitution Avenue, NW, Washington, DC 2020. Do not send the completed forms to this office.

(1) (2) (3) (4) (5)

Page __ of ___

OSHA's Form 300A

Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
(G)	(H)	(1)	(L)
Number of D	ays		
Total number of da job transfer or rest	nys of To riction av	otal number of days ray from work	
(K)	-	(L)	
Injury and III	ness Types		
Total number of (M)	-	- 10 C	
Injuries		(4) Poisonings	
Skin disorders	2	(9) All other illnesse	
Respiratory conditi	ons		

	Occupational Safety and Health Admir
	Form approved OMB no.
1	
Establishment information	
four establishment name	
Street	
City St	ate ZIP
Industry description (e.g., Manufacture of motor true	k trailerz)
Standard Industrial Classification (SIC), if know	n (e.g., SIG 3715)
Employment information (If you don't h Worksheet on the back of this page to estimate.)	nave these figures, see the
Annual average number of employees	,
Total hours worked by all employees last year	
Sign here	
Knowingly falsifying this document ma	ay result in a fine.
I certify that I have examined this documen knowledge the entries are true, accurate, an	at and that to the best of my d complete.
Сотрату консоличе	Tide
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rnone	Line

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currendy valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact. US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.



Optional

Worksheet to Help You Fill Out the Summary

At the end of the year, OSHA requires you to enter the average number of employees and the total hours worked by your employees on the summary. If you don't have these figures, you can use the information on this page to estimate the numbers you will need to enter on the Summary page at the end of the year.

n	w to figure th o worked for IT:	e average number of employees your establishment during the		
0	Add the total i establishment year. Include temporary, se	number of employees your paid in all pay periods during the all employees: full-time, part-time, asonal, salaried, and hourly.	The number of employees paid in all pay periods =	_
2	Count the numerical establishment include any pemployees.	nber of pay periods your had during the year. Be sure to ay periods when you had no	The number of pay periods during the year = 2	
8	Divide the numpay periods.	mber of employees by the number of	<u>0</u> = 0	
3	Round the an number. Writ marked Annu	swer to the next highest whole e the rounded number in the blank al average number of employees.	The number rounded = Q	
3	Round the an number. Writ marked Annu For example, Ac	swer to the next highest whole e the rounded number in the blank al average number of employees.	The number rounded = Q	
9	Round the an number. Writ marked Annua For example, Ac For example, Ac	swer to the next highest whole e the rounded number in the blank al average number of employees. me Construction figured its average employ Acmo paid this number of employees 10	The number rounded = 0 yment this way: Number of employees paid = 830	0
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4	Round the an number. Writ marked Annua For example, Ac For pay period 1 2 3 4 5 ▼ 24 25	swer to the next highest whole e the rounded number in the blank al average number of employees. The Construction figured its average employ Acros paid this number of employees 10 0 15 30 40 V 20 15	The number rounded = \mathbf{Q} ment this way: Number of employees paid = 830 Number of pay periods = 26 $\frac{830}{26}$ = 31.92 26 31.92 rounds to 32	0 0 0

How to figure the total hours worked by all employees:

Include hours worked by salaried, hourly, part-time and seasonal workers, as well as hours worked by other workers subject to day to day supervision by your establishment (e.g., temporary help services workers).

Do not include vacation, sick leave, holidays, or any other non-work time, even if employees were paid for it. If your establishment keeps records of only the hours paid or if you have employees who are not paid by the hour, please estimate the hours that the employees actually worked.

If this number isn't available, you can use this optional worksheet to estimate it.

Optional Worksheet

	Find the number of full-time employees in your establishment for the year.
x	Multiply by the number of work hours for a full-time employee in a year.
	This is the number of full-time hours worked.
+	Add the number of any overtime hours as well as the hours worked by other employees (part-time, temporary, seasonal)
	Round the answer to the next highest whole number. Write the rounded number in the blank marked <i>Total</i> hours worked by all employees last year.

OSHA's Form 301 **Injury and Illness Incident Report**

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



Occ

This Injury and Illness Incident Report is one first forms you must fill out when a recorda related injury or illness has occurred. Toge the Log of Work-Related Injuries and Illnesses accompanying Summary, these forms help th employer and OSHA develop a picture of t and severity of work-related incidents.

Within 7 calendar days after you receiv information that a recordable work-related illness has occurred, you must fill out this fe equivalent. Some state workers' compensati insurance, or other reports may be acceptal substitutes. To be considered an equivalent any substitute must contain all the informat asked for on this form.

According to Public Law 91-596 and 29 1904, OSHA's recordkeeping rule, you mus this form on file for 5 years following the years which it pertains.

If you need additional copies of this for may photocopy and use as many as you nee

Date

Completed by

Title Phone

		Form approved Combino, 1210-0130
	Information about the employee	Information about the case
of the able work-	1) Full name	10) Case number from the Log (Transfer the case number from the Log after you record the case.)
ther with and the	2) Street	11) Date of injury or illness // 12) Time employee began work AM / PM
he he extent	CityStateZIP	13) Time of event AM / PM Check if time cannot be determined
ve injury or orm or an ion,	3) Date of birth// 4) Date hired/ // 5) Male Image: Pemale	14) What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. Examples: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."
ble form, tion	Information about the physician or other health care professional	15) What happened? Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."
9 CFR st keep	6) Name of physician or other health care professional	
ear to rm, you ed.	7) If treatment was given away from the worksite, where was it given? Facility	16) What was the injury or ilness? Tell us the part of the body that was affected and how it was affected; be more specific than "hurt," "pain," or sore." <i>Examples:</i> "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."
	Street Gity State ZIP 8) Was employee treated in an emergency room? Yes	17) What object or substance directly harmed the employee? Examples: "concrete floor"; "chlorine"; "radial arm saw." If this question does not apply to the incident, leave it blank.
	9) Was employee hospitalized overnight as an in-patient?	
		18) If the employee died, when did death occur? Date of death//

Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, induding suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Avenue, NW. Washington, DC 20210. Do not send the completed forms to this office.

If You Need Help...

If you need help deciding whether a case is recordable, or if you have questions about the information in this package, feel free to contact us. We'll gladly answer any questions you have.

- Visit us online at www.osha.gov
- Call your OSHA Regional office and ask for the recordkeeping coordinator
- or
- ▼ Call your State Plan office

Federal Jurisdiction

Region 1 - 617 / 565-9860 Connecticut; Massachusetts; Maine; New Hampshire; Rhode Island

Region 2 - 212 / 337-2378 New York; New Jersey

Region 3 - 215 / 861-4900 DC; Delaware; Pennsylvania; West Virginia

Region 4 - 404 / 562-2300 Alabama; Florida; Georgia; Mississippi

Region 5 - 312 / 353-2220 Illinois; Ohio; Wisconsin

Region 6 - 214 / 767-4731 Arkansas; Louisiana; Oklahoma; Texas

Region 7 - 816 / 426-5861 Kansas; Missouri; Nebraska

Region 8 - 303 / 844-1600 Colorado; Montana; North Dakota; South Dakota

Region 9 - 415 / 975-4310

Region 10 - 206 / 553-5930 Idaho

State Plan States

Alaska - 907 / 269-4957

Arizona - 602 / 542-5795

California - 415 / 703-5100

*Connecticut - 860 / 566-4380

Hawaii - 808 / 586-9100 Indiana - 317 / 232-2688

Iowa - 515 / 281-3661

Kentucky - 502 / 564-3070

Maryland - 410 / 767-2371

Michigan - 517 / 322-1848

Minnesota - 651 / 284-5050

Nevada - 702 / 486-9020

*New Jersey - 609/984-1389

New Mexico - 505 / 827-4230

*New York - 518 / 457-2574

North Carolina - 919/807-2875

Oregon - 503 / 378-3272 Puerto Rico - 787 / 754-2172 South Carolina - 803 / 734-9669 Tennessee - 615 / 741-2793 Utah - 801 / 530-6901 Vermont - 802 / 828-2765 Virginia - 804 / 786-6613 Virgin Islands - 340 / 772-1315 Washington - 360 / 902-5554 Wyoming - 307 / 777-7786

*Public Sector only



Personal Protective Equipment Section 27

ORILLING	Drilling Service	Section No.: 27
Down to Earth.	Safety and Health Program	Initial Issue Date: 11/2014
TOPIC: Personal Protective		Revision Date:
Equipment		
Authority: Mark Murphy	Issuing Dept.: Safety	Page: 1 of 4

Purpose

Appropriate personal protective equipment (PPE) shall be worn by personnel working where the potential for injuries and/or health hazards may exist. The purpose of this procedure is to define the safety requirements as they pertain to personal protective equipment (PPE).

PPE is designed to protect the employee from health and safety hazards that cannot practically be removed from the work environment. PPE is designed to protect many parts of the body including eyes, face, head, hands, feet and ears.

The wearing of suitable personal protective equipment is a condition of employment. Individuals and employees that disregard this condition will be removed or terminated from the project.

A hazard assessment must be conducted and documented in writing. From this assessment the proper PPE will be selected and properly fitted to the affected employees.

Drilling Service requires that all defective PPE be removed from service and will be replaced promptly.

Definitions

- a. Contaminant Any material which by reason of its action upon, within, or to a person is likely to cause physical harm.
- b. O.D. (Optical Density) Refers to the light refractive characteristics of a lens.
- c. Radiant Heat Energy that travels outward in all directions from its source(s).

RESPONSIBILITIES

Superintendents

- 1. Must be aware of the activities and locations within their jurisdiction requiring personal protection. Requirements should be addressed in job hazard analysis (JHA) for each major work activity.
- 2. Train employees in the proper use of Personal Protection Equipment (PPE).
- 3. Assure that appropriate personal protection equipment is worn.
- 4. Review issuing practices and records to control equipment misuse.
- 5. Administering the program and approve temporary deviations.

Employee

1. Employees are responsible for PPE maintenance and are accountable for the care and use of assigned PPE.

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- 2. Employee-owned PPE is not allowed.
- 3. Employees shall inform their superintendent whenever a need arises to use PPE for which the employee has not received training or when a condition exists where adequate PPE is not available.

Head Protection

- a. Because we work in areas where there is the possible danger of head injury from the impact of falling or flying objects, striking against objects, electrical shock and/or burns, or any combination of these hazards will be protected by protective hard hats/helmets will therefore be required 100% of the time on all projects.
- b. Hard hats are designed to protect the employee from impact and penetration caused by objects hitting their head, and from limited electrical shock or burns.
- c. The shell of the hard hat is designed to absorb some of the impact.
- d. The suspension, which consists of the headband and strapping, is even more critical for absorbing impact. It must be adjusted to fit the wearer and to keep the shell a minimum distance of one-and-one-fourth inches above the wearer's head. Materials should not be stored in the suspension of the hard hat.
- e. Hard hats shall meet the specifications contained in American National Standard Institute (ANSI), Z89.1, Safety Requirements for Industrial Head Protection.
- f. Hard hats for the head protection of employees exposed to high voltage electrical shock or burns shall meet the specifications contained in ANSI Z89.2.
- g. Hard hats may not be altered in a way that will downgrade their efficiency. Typical prohibited alterations include: painting, drilling holes in shell, application of metal jewelry, etc. Hats with these alterations or excessive scratches will be replaced.

ANSI Requirements

- a. Class "A" gear provides protection against impact, penetration, and limited electrical hazards (up to 2,000 VAC) (ANSI Z89.1).
- b. Class "B" gear meets the same criteria but electrical protection is increased to high voltage (up to 20,000 VAC) (Z89.1).
- c. Class "C" gear only provides impact and penetration protection (Z89.1).
- d. Class "D" gear is designed for fire-fighting.
- e. Bump caps are not recognized by ANSI or HRCG for general exposure.
- f. Modified Headgear Requirements The following activities require specialized protection equipment:
 - Welding and cutting operations require head protection (welding hood or hard hat and welding goggles).

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Hearing Protection

- 1. Wherever it is not possible to reduce the noise levels by engineering methods or duration of exposure to acceptable limits, hearing protective devices shall be provided and used.
- 2. Ear protection devices inserted in the ear shall be fitted or determined individually by a competent person or persons.

Eye and Face Protection

At a minimum "Safety Glasses" are to be worn 100% of the time on Drilling Service Company projects. The company will provide employees with additional eye and face protection equipment when machines or operations create the real risk of eye or face injuries due to physical, chemical and/or radiation agents. Employees will be required to wear the provided eye or face protective equipment when work assignment or operations present the real risk of eye or face injuries.

Procedures

- 1. Employees, contractors and subcontractors will be advised of our mandatory eye and face protection program at the pre-shift, pre-job, or pre-employment briefings. Specific reference will be made to the Job Rules, which outline the requirements to each individual.
- 2. The Site Specific Safety Plan identifies the requirements for using face and eye protection.
- 3. Employees whose vision requires the use of corrective lens in spectacles will be provided with goggles which can be worn over the corrective spectacles. Employees whose vision requires the use of corrective lenses may wear those spectacles as long as they meet the ANSI Z87.1 Eye Wear Protection Standard.

Hand Protection

- 1. Fingers, hands and arms are injured more often than any other parts of the body. Hand protection must be provided and worn when employees are exposed to hazards such as, but not limited to, those from skin absorption or harmful substance, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns and harmful temperature extremes.
- 2. Gloves made from natural and/or man-made materials (neoprene, rubber, synthetic, vinyl, etc.) are to be used when working with most chemicals and/or petroleum-based products. Proper selection will depend on the product and its concentration.
- **3**. Leather or cotton knitted gloves are appropriate for handling most abrasive materials. Gloves reinforced with metal staples offer greater protection from sharp objects.

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Foot Protection

- 1. Employee foot protection shall consist of hard-soled, rubber-heeled, well fitting, leatherwork boots or shoes that are in good repair. Boots with uppers that extend over the top of the ankle are preferred.
- 2. All employees are encouraged to wear, and may be caused by work place conditions or requirements to wear, safety shoes equipped with safety toes and shanks. The purchase of safety shoes, unless specified by collective bargaining, is at the employee's expense.
- 3. The wearing of street shoes, tennis shoes, or sandals in a construction area is prohibited.

Training

When the employee has been trained does not have the required understanding and skill or there are changes in the workplace, the employee must be retrained.

Training is documented and kept on file. Employees will be trained annually.



Powered Industrial Trucks

Section 28

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Purpose

To ensure equipment operators have the knowledge and skills needed to operate a powered industrial truck safely.

Definition: Powered Industrial Truck: A mobile, power-driven vehicle used to carry, push, pull, lift, stack and tier material.

Classes of Powered Industrial Trucks

Class 1: Electric motor, sit-down rider, counterbalanced trucks (solid, pneumatic tires). Class 2 - Electric motor, narrow aisle trucks (solid tires).

Class 3: Electric motor hand trucks or hand/rider trucks (solid tires). Class 4 - Internal combustion engine trucks (solid tires).

Class 5: Internal combustion engine trucks (pneumatic tires).

Class 6: Electric and internal combustion engine tractors (solid, pneumatic tires). Class 7 - Rough terrain forklift trucks (pneumatic tires).

As of December 1, 1999, operators of power industrial trucks must be certified by their employer that they have successfully completed training in the use of the equipment being utilized. Training shall consist of a combination of formal instruction (lecture, discussion, interactive learning, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace. All training will be conducted by person(s) who have the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence.

Training Program Content

Powered industrial truck operators shall receive initial training in the following topics unless they are not applicable to the safe operation of the truck in the workplace.

Truck Related Topics to be covered during Training:

- Differences between a powered industrial truck and an automobile.
- Operating instructions, warnings, and precautions for the type of truck the operator will operate.
- Truck controls and instrumentation: where they are located, what they do, and how they work.
- Engine and motor operation.
- Steering and maneuvering
- Visibility, including restrictions due to loading.
- Fork and attachment adaptation, operation, and use limitations.
- Vehicle capacity and stability
- Vehicle inspections and maintenance that must be performed by the operator.
- Refueling and/or charging and recharging of batteries.
- Operating limitations.
- Operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate.

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Workplace topics to be covered during training:

- Surface conditions where the vehicle will be operated.
- Composition of loads to be carried and load stability.
- Load manipulation, stacking, and unstacking.
- Pedestrian traffic in areas where the vehicle will be operated.
- Narrow aisles and other restricted places where the vehicle will be operated.
- Hazardous locations where the vehicle will be operated.
- Ramps and other sloped surfaces that could affect the vehicle's stability.
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust.
- Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation.

Training Frequency

Training shall be provided prior to an employee operating a powered industrial truck and shall, at a minimum, be conducted at least every three years. Refresher training in relevant topics shall be provided to the operator when:

- The operator is observed to operate the vehicle in an unsafe manner.
- The operator has been involved in an accident or a near-miss incident.
- The operator has received an evaluation that reveals that the operator is not operating the powered industrial truck safely.
- The operator is assigned to drive a different type of powered industrial truck.
- A condition in the workplace changes in a manner that could affect the safe operation of the powered industrial truck.

NOTE: If an operator has previously received training, and such training is appropriate to the powered industrial truck and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the truck safely.

Equipment Inspection

Drilling Service operators will inspect lift trucks before each shift.

Securing Trailers During Loading and Unloading

Operator must verify wheel chocks, trailer supports and dock plates are in place prior to loading and unloading.

Certification

Drilling Service Company shall certify that each operator has been trained and evaluated. The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training evaluation. A copy of the training material used to train Drilling Service Company employees shall be maintained at the main office.



Respiratory Protection Program Section 29

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- II. Assignment of Responsibility
 - A. Employer
 - B. Program Administrator
 - C. Supervisors
 - D. Employees
- III. Applicability
- IV. Program
 - A. Hazard Assessment and Respirator Selection
 - B. Updating the Hazard Assessment
 - C. Training
 - D. NIOSH Certification
 - E. Voluntary Respirator Use
 - F. Medical Evaluation
 - G. Fit Testing
 - H. General Respirator Use Procedures
 - I. Change Schedules
 - J. Cleaning
 - K. Maintenance
 - L. Storage
 - M. Respirator Malfunctions and Defects
 - N. Program Evaluation
 - O. Documentation and Recordkeeping

V. Attachments

- A. Hazard Assessment Log
- B. Record of Respirator Use
- C. Record of Respirator Issuance
- D. Respirator Inspection Checklist
- E. Emergency Potential Log

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I. OBJECTIVE

The Drilling Service Company Respiratory Protection Program is designed to protect employees by establishing accepted practices for respirator use, providing guidelines for training and respirator selection, and explaining proper storage, use and care of respirators. This program also serves to help the company and its employees comply with Occupational Safety and Health Administration (OSHA) respiratory protection requirements as found in 29 CFR 1910.134.

II. ASSIGNMENT OF RESPONSIBILITY

A. Employer

Drilling Service Company is responsible for providing respirators to employees when they are necessary for health protection. Drilling Service will provide respirators that are applicable and suitable for the intended purpose at no charge to affected employees. Any expense associated with training, medical evaluations and respiratory protection equipment will be borne by the company.

B. Program Administrator

The Program Administrator for Drilling Service Company is Sean Jackson. The Program Administrator is responsible for administering the respiratory protection program. Duties of the program administrator include:

- 1. Identifying work areas, process or tasks that require workers to wear respirators.
- 2. Evaluating hazards.
- 3. Selecting respiratory protection options.
- 4. Monitoring respirator use to ensure that respirators are used in accordance with their specifications.
- 5. Arranging for and/or conducting training.
- 6. Ensuring proper storage and maintenance of respiratory protection equipment.
- 7. Conducting qualitative fit testing with Safety Training Resources.
- 8. Administering the medical surveillance program.
- 9. Maintaining records required by the program.
- 10. Evaluating the program.
- 11. Updating written program, as needed.
- C. Supervisors

Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge. Duties of the supervisor include:

- 1. Ensuring that employees under their supervision (including new hires) receive appropriate training, fit testing, and annual medical evaluation.
- 2. Ensuring the availability of appropriate respirators and accessories.
- 3. Being aware of tasks requiring the use of respiratory protection.

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- 4. Enforcing the proper use of respiratory protection when necessary.
- 5. Ensuring that respirators are properly cleaned, maintained, and stored according to this program.
- 6. Ensuring that respirators fit well and do not cause discomfort.
- 7. Continually monitoring work areas and operations to identify respiratory hazards.
- 8. Coordinating with the Program Administrator on how to address respiratory hazards or other concerns regarding this program.

D. Employees

Each employee is responsible for wearing his or her respirator when and where required and in the manner in which they are trained. Employees must also:

- 1. Care for and maintain their respirators as instructed, guard them against damage, and store them in a clean, sanitary location.
- 2. Inform their supervisor if their respirator no longer fits well, and request a new one that fits properly.
- 3. Inform their supervisor or the Program Administrator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding this program.
- 4. Use the respiratory protection in accordance with the manufacturer's instructions and the training received.

III. APPLICABILITY

This program applies to all employees who are required to wear respirators during normal work operations, as well as during some non-routine or emergency operations, such as a spill of a hazardous substance.

In addition, any employee who voluntarily wears a respirator when one is not required (i.e., in certain maintenance and coating operations) is subject to the medical evaluation, cleaning, maintenance, and storage elements of this program, and will be provided with necessary training. Employees who voluntarily wear filtering face pieces (dust masks) are not subject to the medical evaluation, cleaning, storage, and maintenance provisions of this program. All employees and processes that fall under provisions of this program are listed in **Attachment C**.

IV. PROGRAM

A. Hazard Assessment and Respirator Selection

The Program Administrator will select respirators to be used on site, based on the hazards to which workers are exposed and in accordance with the OSHA Respiratory Protection Standard. The Program Administrator will conduct a hazard evaluation for each operation, process, or work area where airborne contaminants may be present in routine operations or during an emergency. A log of identified hazards will be maintained by the Program Administrator. The hazard evaluations shall include:

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- 1. Identification and development of a list of hazardous substances used in the workplace by department or work process.
- 2. Review of work processes to determine where potential exposures to hazardous substances may occur. This review shall be conducted by surveying the workplace, reviewing the process records, and talking with employees and supervisors.
- 3. Exposure monitoring to quantify potential hazardous exposures.

The proper type of respirator for the specific hazard involved will be selected in accordance with the manufacturer's instructions. A list of employees and appropriate respiratory protection will be maintained by the Program Administrator (**see Attachment C**).

B. Updating the Hazard Assessment

The Program Administrator must revise and update the hazard assessment as needed (i.e., any time work process changes may potentially affect exposure). If an employee feels that respiratory protection is needed during a particular activity, he/she is to contact his/her supervisor or the Program Administrator. The Program Administrator will evaluate the potential hazard, and arrange for outside assistance as necessary. The Program Administrator will then communicate the results of that assessment to the employees. If it is determined that respiratory protection is necessary, all other elements of the respiratory protection program will be in effect for those tasks, and the respiratory program will be updated accordingly.

C. Training

The Program Administrator will provide training to respirator users and their supervisors on the contents of the Drilling Service Company Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection Standard. All affected employees and their supervisors will be trained prior to using a respirator in the workplace. Supervisors will also be trained prior to supervising employees that must wear respirators.

The training course will cover the following topics:

- 1. the Drilling Service Company Respiratory Protection Program;
- 2. the OSHA Respiratory Protection Standard (29 CFR 1910.134);
- 3. respiratory hazards encountered at Drilling Service and their health affects;
- 4. proper selection and use of respirators;
- 5. limitations of respirators;
- 6. respirator donning and user seal (fit) checks;
- 7. fit testing;
- 8. emergency use procedures;
- 9. maintenance and storage; and
- 10. medical signs and symptoms limiting the effective use of respirators.

Employees will be retrained annually or as needed (e.g., if they change departments or work processes and need to use a different respirator). Employees must demonstrate their understanding of the topics covered in the training through hands-on exercises and a written test. Respirator training will be

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documented by the Program Administrator and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested.

D. NIOSH Certification

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while the respirator is in use.

E. Voluntary Respirator Use

The Program Administrator shall authorize voluntary use of respiratory protective equipment as requested by all other workers on a case-by-case basis, depending on specific workplace conditions and the results of medical evaluations.

The Program Administrator will provide all employees who voluntarily choose to wear the above respirators with a copy of Appendix D of the OSHA Respiratory Protection Standard. (Appendix D details the requirements for voluntary use of respirators by employees.) Employees who choose to wear a half face piece APR must comply with the procedures for Medical Evaluation, Respirator Use, Cleaning, Maintenance and Storage portions of this program.

F. Medical Evaluation

Employees who are either required to wear respirators, or who choose to wear a half face piece APR voluntarily, must pass a medical exam provided by Drilling Service Company before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use.

A licensed physician at Concentra, where all company medical services are provided, will provide the medical evaluations. Medical evaluation procedures are as follows:

- 1. The medical evaluation will be conducted using the questionnaire provided in Appendix C of the OSHA Respiratory Protection Standard. The Program Administrator will provide a copy of this questionnaire to all employees requiring medical evaluations.
- 2. To the extent feasible, the company will provide assistance to employees who are unable to read the questionnaire. When this is not possible, the employee will be sent directly to the physician for medical evaluation.
- 3. All affected employees will be given a copy of the medical questionnaire to complete, along with a stamped and addressed envelope for mailing the questionnaire to the company physician. Employees will be permitted to complete the questionnaire on company time.
- 4. Follow-up medical exams will be granted to employees as required by the Standard, and/or as deemed necessary by the evaluating physician.

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- 5. All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.
- 6. The Program Administrator shall provide the evaluating physician with a copy of this Program, a copy of the OSHA Respiratory Protection Standard, the list of hazardous substances by work area, and the following information about each employee requiring evaluation:
 - a. his or her work area or job title;
 - b. proposed respirator type and weight;
 - c. length of time required to wear respirator;
 - d. expected physical work load (light, moderate or heavy);
 - e. potential temperature and humidity extremes; and
 - f. any additional protective clothing required.
- 7. Positive pressure air purifying respirators will be provided to employees as required by medical necessity.
- 8. After an employee has received clearance to wear his or her respirator, additional medical evaluations will be provided under the following circumstances:
 - a. The employee reports signs and/or symptoms related to their ability to use the respirator, such as shortness of breath, dizziness, chest pains or wheezing.
 - b. The evaluating physician or supervisor informs the Program Administrator that the employee needs to be reevaluated.
 - c. Information found during the implementation of this program, including observations made during the fit testing and program evaluation, indicates a need for reevaluation.
 - d. A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

A list of Drilling Service employees currently included in medical surveillance is provided in **Attachment C** of this program.

All examinations and questionnaires are to remain confidential between the employee and the physician. The Program Administrator will only retain the physician's written recommendations regarding each employee's ability to wear a respirator.

G. Fit Testing

Employees who are required to or who voluntarily wear half-face piece APRs will be fit tested:

- 1. prior to being allowed to wear any respirator with a tight-fitting face piece;
- 2. annually; or
- 3. when there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.).

Employees will be fit tested with the make, model, and size of respirator that they will actually wear.

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Employees will be provided with several models and sizes of respirators so that they may find an optimal fit. Fit testing of powered air purifying respirators will be conducted in the negative pressure mode.

The Program Administrator will conduct fit tests in accordance with the OSHA Respiratory Protection Standard.

- H. General Respirator Use Procedures
 - Employees will use their respirators under conditions specified in this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer.
 - 2. All employees shall conduct user seal checks each time they wear their respirators. Employees shall use either the positive or negative pressure check (depending on which test works best for them) as specified in the OSHA Respiratory Protection Standard.
 - a. Positive Pressure Test: This test is performed by closing off the exhalation valve with your hand. Breathe air into the mask. The face fit is satisfactory if some pressure can be built up inside the mask without any air leaking out between the mask and the face of the wearer.
 - b. Negative Pressure Test: This test is performed by closing of the inlet openings of the cartridge with the palm of your hand. Some masks may require that the filter holder be removed to seal off the intake valve. Inhale gently so that a vacuum occurs within the face piece. Hold your breath for ten (10) seconds. If the vacuum remains, and no inward leakage is detected, the respirator is fit properly.
 - 3. All employees shall be permitted to leave the work area to go to the locker room to maintain their respirator for the following reasons:
 - a. to clean their respirator if it is impeding their ability to work;
 - b. to change filters or cartridges;
 - c. to replace parts; or
 - d. to inspect respirator if it stops functioning as intended.

Employees should notify their supervisor before leaving the area.

- 4. Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures, that would prevent a proper seal. Employees are not permitted to wear headphones, jewelry, or other items that may interfere with the seal between the face and the face piece.
- 5. Before and after each use of a respirator, an employee or immediate supervisor must make an inspection of tightness or connections and the condition of the face piece, headbands, valves, filter holders and filters. Questionable items must be addressed immediately by the supervisor and/or Program Administrator.

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I. Change Schedules

Respirator cartridges shall be replaced as determined by the Program Administrator, supervisor(s), and manufacturer's recommendations.

J. Cleaning

Respirators are to be regularly cleaned and disinfected at the designated respirator cleaning station. Respirators issued for the exclusive use of an employee shall be cleaned as often as necessary. Atmosphere-supplying and emergency use respirators are to be cleaned and disinfected after each use.

The following procedure is to be used when cleaning and disinfecting reusable respirators:

- 1. Disassemble respirator, removing any filters, canisters, or cartridges.
- Wash the face piece and all associated parts (except cartridges and elastic headbands) in an approved cleaner-disinfectant solution in warm water (about 120 degrees Fahrenheit). Do not use organic solvents. Use a hand brush to remove dirt.
- 3. Rinse completely in clean, warm water.
- 4. Disinfect all facial contact areas by spraying the respirator with an approved disinfectant.
- 5. Air-dry in a clean area.
- 6. Reassemble the respirator and replace any defective parts. Insert new filters or cartridges and make sure the seal is tight.
- 7. Place respirator in a clean, dry plastic bag or other airtight container.

The Program Administrator will ensure an adequate supply of appropriate cleaning and disinfection materials at the cleaning station. If supplies are low, employees should notify their supervisor, who will inform the Program Administrator.

K. Maintenance

Respirators are to be properly maintained at all times in order to ensure that they function properly and protect employees adequately. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components will be replaced or repairs made beyond those recommended by the manufacturer. Repairs to regulators or alarms of atmosphere-supplying respirators will be conducted by the manufacturer.

- 1. All respirators shall be inspected routinely before and after each use.
- 2. Respirators kept for emergency use shall be inspected after each use, and at least monthly by the Program Administrator to assure that they are in satisfactory working order.
- 3. The Respirator Inspection Checklist (**Attachment D**) will be used when inspecting respirators.
- 4. A record shall be kept of inspection dates and findings for respirators maintained for emergency use.

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- 5. Employees are permitted to leave their work area to perform limited maintenance of their respirator in a designated area that is free of respiratory hazards. Situations when this is permitted include:
 - a. Washing face and respirator face piece to prevent any eye or skin irritation;
 - b. Replacing the filter, cartridge or canister;
 - c. Detection of vapor or gas breakthrough or leakage in the face piece; or
 - d. Detection of any other damage to the respirator or its components.

L. Storage

After inspection, cleaning, and necessary repairs, respirators shall be stored appropriately to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals.

- a. Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. Each employee will clean and inspect their own air-purifying respirator in accordance with the provisions of this program, and will store their respirator in a plastic bag in the designated area. Each employee will have his/her name on the bag and that bag will only be used to store that employee's respirator.
- b. Respirators shall be packed or stored so that the face piece and exhalation valve will rest in a near normal position.
- c. Respirators shall not be placed in places such as lockers or toolboxes unless they are in carrying cartons.
- d. Respirators maintained at stations and work areas for emergency use shall be stored in compartments built specifically for that purpose, be quickly accessible at all times, and be clearly marked.
- e. The Program Administrator will store Drilling Service Company's supply of respirators and respirator components in their original manufacturer's packaging in the Drilling Service Shop.
- M. Respirator Malfunctions and Defects
 - 1. Respirators that are defective or have defective parts shall be taken out of service immediately. If, during an inspection, an employee discovers a defect in a respirator, he/she is to bring the defect to the attention of his/her supervisor. Supervisors will give all defective respirators to the Program Administrator. The Program Administrator will decide whether to:
 - a. temporarily take the respirator out of service until it can be repaired
 - b. perform a simple fix on the spot, such as replacing a head strap; or
 - c. dispose of the respirator due to an irreparable problem or defect.

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When a respirator is taken out of service for an extended period of time, the respirator will be tagged out of service, and the employee will be given a replacement of a similar make, model, and size. All tagged out respirators will be kept in the Drilling Service Shop.

N. Program Evaluation

The Program Administrator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluations will include regular consultations with employees who use respirators and their supervisors, site inspections, air monitoring and a review of records. Items to be considered will include:

- 1. comfort;
- 2. ability to breathe without objectionable effort;
- 3. adequate visibility under all conditions
- 4. provisions for wearing prescription glasses;
- 5. ability to perform all tasks without undue interference; and
- 6. confidence in the face piece fit.

Identified problems will be noted in an inspection log and addressed by the Program Administrator. These findings will be reported to Drilling Service management, and the report will list plans to correct deficiencies in the respirator program and target dates for the implementation of those corrections.

O. Documentation and Recordkeeping

- 1. A written copy of this program and the OSHA Respiratory Protection Standard shall be kept in the Program Administrator's office and made available to all employees who wish to review it.
- 2. Copies of training and fit test records shall be maintained by the Program Administrator. These records will be updated as new employees are trained, as existing employees receive refresher training, and as new fit tests are conducted
- 3. For employees covered under the Respiratory Protection Program, the Program Administrator shall maintain copies of the physician's written recommendation regarding each employee's ability to wear a respirator. The completed medical questionnaires and evaluating physician's documented findings will remain confidential in the employee's medical records at the location of the evaluating physician's practice.

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ATTACHMENT A

Hazard Assessment Log

Hazard Assessment Log DATE:				
Department	Contaminants	Exposure Level (8 hr TWA*)	PEL**	Controls

* Summarized from Industrial Hygiene report provided by Sean Jackson.

** These values were obtained from a survey on average exposures as published in the American Journal of Industrial Hygiene.

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ATTACHMENT B

Record of Respirator Use

Required and Voluntary Respirator Use at Drilling Service Company		
Type of Respirator	Department/Process	
Filtering face piece (dust mask)	Voluntary use for warehouse workers	
Half-face piece APR or PAPR with P100 filter	Welders	
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ATTACHMENT C

Record of Respirator Issuance

Drilling Service Company Personnel in Respiratory Protection Program <u>Date:</u>					
Respiratory p	rotection is required	for and has been issued t	o the following person	nel:	
Name	Department	Job Description/ Work Procedure	Type of Respirator	Date Issued	

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ATTACHMENT D

Respirator Inspection Checklist

Type of Respirator:	Location:	
Respirator Issued to:	Type of Hazard:	
Face piece	Cracks, tears, or holes Face mask distortion Cracked or loose lenses/face shield	
Head straps	Breaks or tears Broken buckles	
Valves:	Residue or dirt Cracks or tears in valve material	
Filters/Cartridges:	Approval designation Gaskets Cracks or dents in housing Proper cartridge for hazard	
Rubber/Elastomer Parts	Pliability Deterioration	

Inspected by:	Date:
Action Taken:	

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ATTACHMENT F

Emergency Potential Log

The following work areas at Drilling Service Company have been identified as having foreseeable emergencies:

Area	Type of Emergency	Location of Emergency Respirator(s)

Program Administrator



Safety & Health Work Rules

Section 30

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Drilling Service Company

MANDATORY SAFETY, HEALTH AND WORK RULES

<u>ALL employees of Drilling Service Company will follow these safety rules 100% of the time. There are NO exceptions!</u>

GENERAL RULES

- 1. All employees must have and carry their 10 hour OSHA card.
- 2. Every employee will be drug tested prior to employment and will be subject to random drug testing at any time.
- 3. Firearms and weapons are prohibited.
- 4. All injuries, no matter how slight, must be reported immediately to your immediate supervisor.
- 5. The use of phones and texting are strictly prohibited on the job other than the foreman not operating equipment. (Use of phone should only be during lunch breaks.)
- 6. All posted safety rules must be obeyed and must not be removed except by management's authorization.
- 7. Comply at all times with federal, state and local safety laws, company rules and policies.
- 8. Report any unsafe conditions to your immediate supervisor for immediate correction.
- 9. Keep all tools in safe working condition. **Do not use** defective tools or equipment. Remove defective tools from service, tag and give to your immediate supervisor for repair or replacement at once.
- 10. A guardrail or other positive means of fall protection is required any time an employee will be exposed to a fall of 6 ft. or greater.

PROTECTIVE EQUIPMENT

- 1. Properly care for and be responsible for all personal protective equipment. Tag **"DO NOT USE"** on any defective personal protective equipment (PPE) and return it to your immediate supervisor for repair or replacement.
- 2. Wear hard hats on job site **at all times.**
- 3. 100% use of safety glasses on all jobs is required. In addition, use face protection where there is danger from flying particles such as when grinding, chipping, burning, welding, etc.
- 4. Hearing protection **shall** be worn where required.
- 5. Dress properly. Wear appropriate work clothes, gloves and shoes or boots. Loose clothing and jewelry must not be worn.
- Sleeveless shirts, shorts and halter tops are not permitted. Shirts or coveralls must have full length pants; a tee shirt with sleeves is the minimum acceptable shirt during hot weather. Be aware of the dangers of loose clothing.
- 7. High visible outerwear is mandatory on every jobsite.
- 8. Tie off at all times required by current OSHA regulations and any site-specific requirements. Tie off **ONLY** to static lines, structural members, lifelines, etc. capable of supporting 5,400 pounds with appropriate safety harness and shock absorbing lanyard.

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PERSONAL ACTS

- 1. The use of or being under the influence of controlled substances, other than prescriptions issued by licensed medical personnel, is prohibited during working hours. <u>Employees must notify their supervisor</u> when utilizing prescribed controlled substances.
- 2. The use of or being under the influence of intoxicating beverages or illegal drugs while at work is strictly prohibited and subject to immediate dismissal without warning.
- 3. Watch where you step.
- 4. Do not jump from level to level or jump from equipment.
- 5. Do not walk under loads.
- 6. Keep your body, hands and fingers, feet, head, etc. away from places where a moving machine or suspended load can pinch you.
- 7. Always face a ladder while climbing up or down.
- 8. Do not grab a cable near a sheave or block.
- 9. Do not stand or work in the bight of a cable under a load.
- 10. Do not stand near a truck when load binders are being removed or during loading or unloading.
- 11. Do not move a loaded truck without binding the load or providing adequate sideboards or stakes.
- 12. Do not work on scaffolds unless fully planked.
- 13. Do not point compressed air, hydraulic operated, pneumatic or powder actuated tool at anyone.
- 14. Horseplay causes accidents and will not be tolerated!

HOUSEKEEPING

- 1. Practice good housekeeping on a daily basis.
- 2. Do not leave materials in aisles, walkways, stairways, roads, near access to ladders, etc.
- 3. Stack materials safely and not to excessive heights. Avoid stacking materials at or near floor perimeters or openings.
- 4. Clean or wipe oil & grease from iron decking on equipment.
- 5. Do not leave bolts, pins or tools on equipment decks where they may become a tripping hazard.
- 6. Do not lay a powered tool in such a way that the trigger could be pulled or struck by mistake.
- 7. Place air hoses, leads and torch hoses where people will not trip over them.
- 8. Do not allow equipment to run over hoses or electrical cords.

<u>Violation of any of these rules or any OSHA, MSHA, or project regulations will be sufficient grounds for</u> immediate removal from the project dependent upon the seriousness and/or repetition of the violation.

I have read and understand all these MANDATORY SAFETY, HEALTH AND WORK RULES and agree to abide by them during my employment with Drilling Service Company.

Signature

Printed Name

Date

Revised: 9/2014



Substance Abuse Prevention Policy Section 31

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ST. LOUIS CONSTRUCTION INDUSTRY SUBSTANCE ABUSE CONSORTIUM

I. CONSORTIUM OBJECTIVE

The objective of the Consortium is to provide consistent, fair, and manageable procedures for drug screening of employee's that will be accepted by project owners, and to maintain a central depository of individuals in order to expedite their employment.

The purpose of the substance abuse program is to increase on-the-job safety and productivity by denying job site presence to individuals whose abilities are impaired by drugs or alcohol. The types of testing conducted under this program will involve enrollment, pre-assignments, post-accident, return to duty, for cause, random and mandatory follow-up testing. This Consortium program, along with the employee assistance referral program, will help produce a drug-free work place and improve work place safety.

II. CONSORTIUM STATEMENT

This is to notify all employees that the use, abuse, presence in the body, or reporting to work under the influence, bringing onto the worksite, the unlawful manufacture, distribution, possession, transfer, storage, concealment, transportation, promotion or sale of illegal and unauthorized drugs, controlled substances, alcoholic beverages or drug related paraphernalia by employees is strictly prohibited by the Consortium.

III. CONSORTIUM ADMINISTRATION AND AUDIT

The development, implementation and overall responsibility of this program shall be the responsibility of the St. Louis Construction Industry Substance Abuse Consortium (Consortium). The daily administration and management of the consortium will be provided by a Program Administrator determined by the Consortium. The Consortium Administrator shall make testing records available so as to meet the requirements of federal, state or county agencies, and the contractual requirements of Owners.

IV. CONSORTIUM MEMBERSHIP

Full and affiliated membership in the St. Louis Construction Industry Substance Abuse Consortium is available to Contractors, Labor Groups and Owners at no charge. Only contractor and labor groups will be provided full access to the Substance Abuse Database. Owners will be allowed to receive Compliance Reports from Contractors indicating the workers' Active Status.

V. EMPLOYEE ASSISTANCE REFERRAL PROGRAM

The Consortium recognizes that chemical dependency and other medical behavior conditions are highly complex problems, which often can be successfully treated. Each employee is responsible for seeking help before an alcohol or drug problem leads to disciplinary action. The employee's decision to seek assistance (Self-Referral) prior to a violation of the Consortium rules will not be used as a basis for disciplinary action and will not be used against the employee in any disciplinary proceeding. Employees are encouraged to contact their individual Health and Welfare Programs for assistance.

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VI. TRAINING AND EDUCATION

The Program Administrator will provide training and education to supervisory personnel responsible for determining whether an employee must be tested based on reasonable cause. Training shall cover the specific, contemporaneous physical, behavioral and performance indicators of drug and alcohol abuse. Communicators will be provided training and education in their responsibilities and administration of the program.

VII. SUBSTANCE ABUSE TESTING PROTOCOLS

Members of the Consortium will be required to undergo substance abuse testing as a condition of their enrollment and continued members in the Consortium to determine the use of any illegal or unauthorized drug or substance prohibited by the Consortium.

- 1. **CONFIDENTIALITY**: An employee's expectation of privacy and confidentiality is a top priority of this Consortium. Accordingly, all testing results will be considered a confidential record and will not be disclosed except as authorized by the employee or as legally required.
- 2. **COMMUNICATOR**: Each contractor member assigned access rights to the Substance Abuse Database shall be required to designate a primary and alternate communicator. The communicators will be the only persons allowed to request, receive or discuss testing results.
- 3. **SPECIMEN ANALYSIS**: All urine samples collected under this program shall be analyzed by a NIDA certified laboratory and shall include an initial Enzyme Multiplied Immunoassay Screening test and a Gas Chromatography/Mass Spectrometry (GC/MS) confirmation test. Said testing must screen as a minimum, for the following substances and levels (the Consortium shall have the right to change the drugs tested, the cut-off levels and the analysis procedures as new technology in substance abuse testing warrants):

	(EMIT) Initial Test	(GC/MS) Confirmation Test
	Cut-Off Level	Cut-Off Level
Drugs Tested	<u>(ng/ml)</u>	<u>(ng/ml)</u>
Amphetamines	300	200
Barbiturates	300	100
Benzodiazepines	300	100
Cocaine Metabolite	300	150
Marijuana Metabolites	20	10
Methadone	300	100
Methaqualone	300	200
Opiates	2,000	2,000
Phencyclidine (PCP)	25	25
Propoxyphene	300	200
Breath Alcohol (BAC)	.04	.04
Removal from job site (BAC)	.02000399	.02000399

Worker will be allowed to provide two (2) diluted test results under the Consortium. After two(2) diluted test results, the worker will be encouraged to seek medical assistance to determine if there is a valid medical reason for the diluted results. If a medical reason cannot be determined or if the worker refuses to seek medical assistance, the third (3rd) or remaining diluted tests (if necessary) will be at the individual's expense.

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- 4. SAMPLE COLLECTIONS: Urine samples will be collected by trained collection specialists utilizing NIDA procedures to insure both proper chain of custody and employee confidentiality. All urine samples will be performed with concern for each employee's personal privacy, dignity, and confidentiality.
- **5. EMPLOYEE MEMBER STATUS**: The status of employees will normally be available the **NEXT DAY** to the sponsoring member. To insure employee member confidentiality, positive test results are handled directly by the Medical Review Officer after confirmation by a second analytical procedure.
- 6. **MEDICAL REVIEW OFFICER**: All urine samples confirmed as positive shall be referred to a Medical Review Officer for interpretation. The MRO is a licensed physician who has knowledge of substance abuse disorders and has received the appropriate medical training to interpret and evaluate an individual's positive test result as it relates to the employee's medical history and any other biomedical information.

7. RECORD KEEPING: Hard copy testing results shall be maintained by the Consortium Administrator for the following specified periods:

- a. Negative testing results will be maintained for not less than one (1) year
- b. Positive test results will be maintained for five 5) years.
- c. Rehabilitation records will be maintained for five (5) years.

Information regarding an employee's alcohol or drug test result or rehabilitation will be released only upon the written consent of the individual, except that such information will be released, regardless of consent, to the representative of a state or federal agency upon request as part of an investigation, or upon request to the parties of a grievance initiated by the employee or union in which the test results are a material issue.

8. TYPE OF TESTING TO BE UTILIZED:

- (a) Enrollment Testing: All individuals will be required to have a negative drug test prior to acceptance into the Consortium. Individuals who do not provide a negative test result will be classified to the Inactive Suspended Pool.
 - 1. Member contractors will be allowed to "grandfather in" workers who have a previous negative drug test result within ninety (90) days. Member contractors must provide Program Administrator with documentation of a previous negative drug test that meets or exceeds the standards of the consortium.
 - 2. A test will be required when the employee is reassigned to the Active Pool from the Inactive Pool.
- (b) Pre-Assignment Testing: Employees shall remain subject to the testing requirements of the owner for which they are working unless otherwise excluded by the owner.
- (c) Post-Accident/Incident Testing: Employees could be subject to a drug and alcohol test based on their involvement in, or cause of, a reportable accident or incident which causes or could have caused personal injury or the damage of equipment or property. This test should occur as soon as possible, but should not exceed either (8) hours when alcohol is involved.

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- (d) For Cause or Reasonable Suspicion Testing: Employees will be subject to a drug and alcohol test based on reasonable and articulated belief that an employee is using or has recently abused alcohol or drugs. A decision to test will be based on specific physical, behavioral or performance indicators and documented evidence by two of the employee's supervisors, one of which has received training in the detection of possible symptoms of alcohol and drug use.
- Return to Work, Post Treatment, and Rehabilitation Testing: Employees shall be required to successfully pass a drug and alcohol test upon release from an approved rehabilitation and/or assessment program prior to being returned to the Active Pool. This test will be at the expense of the employee.
- (f) Random Testing: Employees shall be subject to unannounced random drug and alcohol testing. Random selections will be made twelve times a year from the Active Pool at an annualized rate of fifty (50) percent. Random selection will be made by use of a numerical computer program designed to insure that no employee can be singled out.
- (g) Mandatory Follow-up Testing: A test will be required of individuals who have not been tested within the last twenty two (22) months.
- (h) Retest: Individuals receiving a confirmed positive test result shall have the right to request that their original sample be retested by a NIDA approved laboratory of their choice. The request must be made in writing to the MRO within twenty-four (24) hours of the notification of a confirmed positive test. The employee requesting the retest shall pay the initial cost for a retest in advance to the MRO. In the event that said retest should prove to be negative, the employee shall be reimbursed for the cost of the test and b reinstated to the Active Pool.
- (i) Probation Status: Individuals being returned to the Active Pool upon completion of the reinstatement requirements will be subject to additional random testing for a period of up to sixty months.
- (j) Federally Mandated Testing: Any employee, for whom testing is mandated under a Federal Substance Abuse testing program, will remain subject to such testing notwithstanding the requirements of this Consortium.
- **9. INQUIRY**: Member contractors are required to make an inquiry at the time of hire or placement to ascertain the status of the employee and are provided with confidential access to the database to make these inquiries. Inquiries can be made by Internet, phone or fax. Passage is protected by a series of access code numbers and passwords. No information will be released without the proper security clearance. A member contractor's inquiry will cause the worker inquired upon to be re-assigned to that member contractor until a deactivation notice is received.

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a. ACTIVE POOL

The Consortium Administrator shall maintain a database of employees who have been subject to this Consortium Substance Abuse Testing Program in an Active Pool. To remain eligible in the Active Pool, the employee shall be constantly subject to this substance abuse testing program which includes Post-Accident, Reasonable Cause and Random testing. Employee members with an Active Status are available for immediate placement without a test.

b. INACTIVE POOL

The Inactive Pool consists of employees who will require testing to be eligible for employment or placement. An employee or enrollee will be in the Inactive Pool:

- 1. Upon missing a random test through no fault of his own (not willful)
- 2. Upon deactivation by a member contractor

B1. PENDING POOL

Employees with a pending status are not eligible for placement until a final disposition has been received on their previous test. The inquirer should contact his communicator for further information.

B2. SUSPENDED POOL

Indicates that the worker has been suspended from the Consortium. A suspended status does not necessarily mean the employee member has a positive test.

10. APPROVED COLLECTION LOCATIONS: All substance abuse testing occurring under this program must be conducted at an approved collection site.

VIII. POLICY VIOLATIONS

An employee's failure to comply with any provisions of the Consortium's Policy shall be cause for the employee to be reclassified to the Inactive Suspended pool.

A. Determination for Violation of Policy:

- 1 A confirmed positive drug or alcohol test.
- 2 Failure or refusal to sign Notice of Policy.
- 3 Failure to contact the Medical Review Officer as directed.
- 4 Failure to report as directed for random testing.
- 5 The use, possession, sale or distribution of alcohol or a controlled illegal or unauthorized substance, or the presence of any employee in the work place with such ingested substances for non-medical reasons.
- 6 Working, reporting to work, being in the work place, or in an owner or employer owned, leased or rented vehicle while Under the Influence of Alcohol (.04% BAC or greater)j.
- 7 Switching, adulterating, or attempting to tamper with any sample submitted for drug or alcohol testing, or otherwise interfering or attempting to interfere with the testing process.

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- 8 Refusal to submit a specimen for testing will be viewed as a positive test and will carry with it the same consequences as specimens tested and reported as positive.
- 9 The use of a controlled substance by an individual other than the individual for whom the controlled substance was prescribed or the abuse of a controlled substance by the individual for whom it was prescribed is prohibited.

B. Confirmed Positive Test Results:

1 MEDICAL REVIEW OFFICER NOTIFICATION (MRO) After confirmation of a positive test, it will be necessary for the MRO to speak with the employee to allow him/her the opportunity to explain the positive test. Employees who fail to contact the MRO within 2 days of their notification will be reported as a non-contact positive, and reclassified to the Inactive pool.

2 ILLEGAL AND/OR CONTROLLED SUBSTANCES

Any employee who receives a confirmed positive test result for a substance prohibited by the Consortium Policy will be reclassified to the inactive pool pending the satisfactory completion of the reinstatement requirements.

3 ALCOHOLIC OR INTOXICATING BEVERAGES

The following actions that involve alcoholic beverages are prohibited by the Consortium Policy and any violation thereof and will be cause for the employee to be reclassified to the inactive suspended pool.

- a. The consumption, manufacture, distribution, possession, use, sale, or storage of any alcoholic beverage while on or in the work place is prohibited.
- b. The performance or attempted performance of any job function or the operation of any Owner's or Employer's property or equipment while Under the Influence of Alcohol.

C. Reinstatement Requirements:

An individual with a Suspended status can be reclassified to the Active pool when all the following conditions are satisfied:

- 1 Evidence is submitted to CDS that the individual has completed or is actively participating in an approved drug/alcohol assessment, treatment, and/or counseling program.
- 2 Evidence is submitted of the individual's satisfactory passing of a drug and alcohol test. This test shall be conducted by CDS and shall be at the expense of the worker.
- 3 The individual submits a signed statement to CDS that requires him to continue the prescribed treatment and to be subject to additional testing; under a probationary status.

D. Probation Status:

Upon completion of the reinstatement requirements, individuals will be subject to the additional random testing for a period of up to sixty months. During this period, the Consortium has the right to conduct up to six of these random tests in the first twelve months.

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St. Louis Construction Industry Substance Abuse Consortium

KEY CONTACTS

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Director of National Operations

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MEDICAL REVIEW OFFICER

Dr. James Heath Phone: 800-611-5587

PROGRAM SUPPORT

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EMPLOYEE/APPLICANT CONSENT AND WAIVER

I, _____(PRINT NAME), authorize Drilling Service Company to conduct, through St. Louis Construction Industry Substance Abuse Consortium, tests to screen for alcohol and/or drugs and understand that this is a requirement for employment and/or continued employment. I voluntarily authorize the release of all test results to Drilling Service Company and for the Company to use the results for decisions relating to my employment and/or continued employment.

As an applicant, I fully understand and acknowledge that an offer of employment is entirely conditional upon several factors including but not limited to voluntary submission to substance tests(s) and satisfactory test(s) results.

En	ployee/Applicant:		
	Signature		
	Printed		
	Name:		
	Address:		
	City/State/Zip:		
	SSN#:		
	En	Employee/Applicant: Printed Name: Address: City/State/Zip: SSN#:	Employee/Applicant: Signature Printed Name: Address: City/State/Zip: SSN#:

Supervisor Name:_____



Supervisor Responsibilites

Section 32

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SUPERVISOR RESPONSIBILITIES

Safety and health of the employees they supervise is a primary responsibility of the supervisors. To accomplish this obligation, supervisors will:

- 1. Assure that all safety and health rules, regulations, policies and procedures are understood by conducting pre-job safety orientations with all workers, and reviewing rules as the job or conditions change, or when individual workers show a specific need.
- 2. Require the proper care and use of all needed protective equipment.
- 3. Identify and eliminate job hazards expeditiously through job safety analysis procedures.
- 4. Inform and train all employees on the hazardous chemicals they MAY encounter under normal working conditions, or during an emergency situation.
- 5. Conduct or supervise crew leader meetings each work shift to discuss safety matters and work plans for the work- day.
- 6. Receive and take initial action on employee safety suggestions.
- 7. Train employees (new and experienced) in the safe and efficient methods of accomplishing each job or task as necessary.
- 8. Review accident trends and establish prevention measures.
- 9. Attend safety meetings and actively participate in the proceedings.
- 10. Participate in investigations and inspection on safety and health related matters.
- 11. Promote employee participation in the safety and health program.
- 12. Set the proper safety example.
- 13. Identify and quickly eliminate job safety hazards.
- 14. Be trained in first aid and cardiopulmonary resuscitation procedures.
- 15. Thoroughly inspect all new job sites or work areas for actual or potential hazards, and establish site specific work procedures or rules to reduce hazards.



Tools

Section 33

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General

- **A.** Only non-sparking tools shall be permitted in locations where sources of ignition may cause fire or explosion.
- **B.** Tools shall be used only for the purpose for which they were designed.
- **C.** Defective or unsafe tools shall be replaced and turned in for repair immediately. A "Do Not Use" or "Defect" tag shall be placed on such equipment and appropriate record made of determination.
- **D.** When working overhead, unused tools shall be kept in containers or otherwise secured to prevent them from falling. Tools shall not be left in passageways, access ways, and walkways or on ramps, platforms, stairways or scaffolds where they can create a tripping hazard.
- E. Throwing or dropping of tools to another area of level shall be prohibited.
- F. When not in use, tools shall be stored in suitable tool rooms, tool boxes, racks or other containers.
- **G.** All power operated tools designed to accommodate guards shall be equipped with such guards when in use.
- **H.** Tools must be kept clean and free from oil and grease to prevent slipping.
- I. When workers furnish their own tools, such tools must conform to the requirements demanded for satisfactory, efficient work and for safety.
- J. The supervisor is responsible for the safe condition of tools and equipment used by employees, including tools and equipment which may be furnished by employees.

Hand Tools

A. Chisels, Drift Pins and Wedges

- 1. Chisels drift pins and wedges shall be kept free of mushroomed heads.
- **2.** A machinist hammer or sledge hammer and not a carpenter hammer should be used to drive metal wedges.
- **3.** Dull points require heavier blows and cause splintering, chipping and mushrooming. Keep points sharp. Use a coolant in sharpening to prevent loss of temper.
- **4.** Face protection should be provided and worn to prevent injuries from flying splinters or chips. Glasses are required to be worn 100% of the time while on the project.
- 5. Impact tools must be held in a secure, safe manner.
- **6.** The chisel should be held in the most secure and comfortable position. With a firm grip, there is less chance of mashing fingers and hand if the point slips. When working with a helper, tongs should be used.
- 7. Be sure the work piece is solidly supported.
- 8. When flying splinters or chips are being produced, the work should be shielded to protect workers.

B. Files

- 1. Files shall not be used as a chisel or hammer as they are made of hard brittle metal and may chip.
- 2. Files should be kept clean and free of accumulations. A sharp, clean file requires little pressure.
- **3.** A handle should be placed on the tang (sharp point of a file) and the file should be stroked in the direction away from the edge being filed.
- 4. Chalk rubbed into the teeth of a file will help prevent slipping and a possible injury.

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- 5. The metal in a file is not made for use as knives, punches or chisels. Do not make other tools from files.
- **6.** Keep files free of oil and grease and store each file separately. If files are stored together, they wear and chip each other.
- 7. Use a soft metal scraper and file card to remove accumulation from file teeth.
- **8.** Select the proper file needed for a job, use it correctly and keep it in good condition.

C. Hacksaws

- 1. The metal to be cut should be in a firm, secure position. A rolling piece of metal may break the brittle blade and cause an injury.
- 2. A sharp blade with fine teeth should be used to cut hard metal and a sharp blade with coarse teeth should be used to cut soft metal.
- 3. The metal in hacksaw blades is brittle and breaks easily and should not be bent or otherwise stressed so that it may break and cause injuries.
- 4. Do not attempt to sharpen a hacksaw blade. Get a new one. The manufacturer sharpens the blade and then hardens it.
- 5. Select the proper blade to cut metal to prevent breaking the blade and possible injury.
- 6. To start a cut safely, be sure the blade is taut on the frame. Score the cutting line with two (2) or three (3) up strokes.
- 7. To complete a cut, use pressure on the forward or cutting stroke. Stay clear of falling pieces to avoid foot injuries.
- 8. A cost of oil or anti-rust will protect the hacksaw when not in use.

D. Hammers

- 1. The right weight and type of hammer should be selected for each job.
- 2. When working with hammers where there is danger of chips or other flying objects, eye protection should be worn.
- 3. Use the hammer head to strike the work. It is hardened for this purpose and may be checkered or scored to prevent slipping. Grasp a hammer near the end of the handle. The hand will stand a better chance of escaping injury in case of a miss or if something gives.
- 4. Hold nails near the head with the thumb and forefinger to start the drive. The fingers will likely be driven away in case of a miss and not crushed.
- 5. Use the claws of a hammer to draw nails not to strike objects. When withdrawing nails, use a wood block under the hammerhead to lessen handle leverage.
- 6. A steel hammerhead may cause sparks if striking against metal. Remember, sparks may ignite flammable mixtures of air and vapors or air and explosive dusts. Special hammers made of non-sparking metals should be used when conditions described above are known or suspected.
- 7. Keep hammers free from oil and grease.
- 8. Hammer handles should be free of slivers and made of hickory, ash or maple. A band of friction tape around the end of the handle will keep it from slipping out of your hand. Handles should be wedged squarely and securely into the head. A mixture of two (2) parts linseed oil and one (1) part turpentine is used to coat wooden handles.
- 9. Redress any hammerhead that becomes marred.

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E. Handsaws

- 1. Saw cuts and sliver injuries should receive immediate first aid attention as lumber can carry tetanus germs.
- 2. Keep the saw teeth sharp and properly set to prevent the saw from choking in the cut.
- 3. A crosscut saw has teeth angled to cut across wood grain, not with the grain.
- 4. A ripsaw has teeth angled to cut with the grain.
- 5. Start to cut slowly until the saw takes a smooth bite. Guide the saw initially with the thumb while taking one (1) or two (2) long, slow strokes to make an active groove.
- 6. Use a steady support to saw a piece of lumber. Stand in a position so the saw will not strike the knee or leg on a cut through.

F. Screwdrivers

- 1. Screw drivers should not be used as a chisel, pry or wedge.
- 2. Screw drivers should be used in a manner such that the hand will not be punctured or will not strike the work piece in case of a slip.
- 3. Use the proper size and type of screwdriver for the kind of screw to be driven.
- 4. Screwdrivers slip when not securely held or the user if off balance. The work piece should not be held by hand. Secure the work piece with clamps or a vise.
- 5. While working around electrical equipment, wear protective equipment or use an insulated screwdriver to avoid shock. Use safety glasses to avoid flash burns.
- 6. Replace a split screwdriver. Dress a screwdriver tip if it becomes dull or chipped. Use other tools for work that a screwdriver is not designed to do.

G. Sharp-Edged Tools

- 1. Tools with sharp edges such as saws, axes, scythes, knives, chisels, awls, wood planes and drill bits should have the cutting edge guarded or covered when in storage or being carried.
- 2. Sharp-edged tools should be used so that the cutting edge is stroked or pointed away from the body.
- 3. The piece being cut should be secured in a vise or other safe manner.
- 4. Keep tools sharp and properly oiled, or use an anti-rust coating material. A tool in good condition helps prevent injuries.
- 5. Stroke sharp-edged tools away from the body.
- 6. Protect materials from damage by sharp-edged tools.
- 7. Eye protection should be used when there is a danger from flying objects.

H. Wrenches

- 1. The right size and type of wrench should be selected for each job.
- 2. Hammering on a wrench or the use of extension pipe "cheaters" is dangerous, can break the wrench and is not a safe work practice.
- 3. The teeth of pipe wrenches should be kept clean and sharp to avoid chips.
- 4. Wrenches used improperly may break, slip or spread. Hammering a wrench may break the handle, so will extension of the handles to get more leverage. Check on other ways to do the job.

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- 5. An adjustable wrench has more parts. Inspect the knurl pin and adjustable jaws. Replace defective parts. Workers should be positioned to avoid striking hands or body parts in case the wrench slips or falls.
- 6. Do not use a shim to make jaws fit. This is an unsafe practice. Get a wrench that fits.
- 7. When working at high levels, do not place wrenches where they can be jarred or accidentally knocked into machinery or fall on employees.
- 8. Use extension or universal joints when reaching for different parts with a wrench. Then keep hands out of danger zones.

Power Tools

A. General

- 1. All power tools and similar equipment shall be maintained in a safe condition.
- 2. Do not issue or permit the use of unsafe tools.
- 3. Power tools that are designed to accommodate guards shall be equipped with such guards when in use.
- 4. Employees using hand and power tools and exposed to hazards of falling, flying, abrasive and splashing objects or exposed to harmful dust, fumes, mist, vapors or gases shall be provided with, trained in their use and required to utilize approved personal protective equipment.
- 5. Tools shall be used only for the purpose for which they were designed.
- 6. Defective or unsafe tools shall be replaced and tuned in for repair immediately.

B. Electrical Power Tools

- 1. Electrical power operated tools shall either be of the approved double-insulated type or grounded in accordance with the National Electric Code.
- 2. The use of the electric cord for hoisting or lowering electric tools is an unsafe practice and should not be permitted.
- 3. All handheld powered sanders, grinders with wheels 2-inch diameter or less, routers, planers, laminate trimmers, nibblers, shears, scroll saws and jigsaw with blade shanks ¼ of an inch wide or less may be equipped with only a positive "on-off" control.
- 4. All handheld powered drills, tappers, fastener drivers, horizontal, vertical and angle grinders with wheels greater than 2 inches in diameter, disc sanders, belt sanders, reciprocating saws, saber saws and other similar operating powered tools shall be equipped with a momentary contact "on-off" control and may have a lock-on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on.
- 5. All other handheld powered tools such as circular saws, chain saws and percussion tools without positive accessory holding means shall be equipped with a constant pressure switch that will shut off the power when the pressure is released.

C. Pneumatic Powered Tools

- 1. Hose lines shall be so placed to eliminate tripping hazards.
- 2. Pressure shall be shut off and exhausted from the line before disconnecting the line from any tool or connection.

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- 3. Safety clips, chains, wires or other retainers shall be used to secure sections of hose together and to secure the hose to the power source and the tool to the hose in order to prevent dangerous whipping in case of disconnection or failure.
- 4. Compressed air shall not be used for cleaning purposes unless the pressure is reduced to 30 p.s.i. or less. This rule does not apply for concrete form mill scale, green cutting, and similar cleaning operations. Personnel involved in these operations shall be provided with adequate personal protective equipment including safety goggles or face shield, hearing protection, etc.

D. Powder (Explosive) Actuated Tools

- 1. In some states there are specific regulations governing the use of powder actuated tools. Strict compliance with applicable regulations shall be mandatory.
- 2. With each tool, the manufacturer or supplier should furnish a detailed instruction manual covering the application, operation and maintenance of the tool. The manufacturer's recommendation for size of charge, stud unit or pin, and for specific application, must be followed explicitly by the operator.
- 3. Information from the manufacturer on the safe use, testing and maintenance of each type of tool should be provided in each tool kit.
- 4. Only operators who are properly trained and certified shall be allowed to operate powder actuated tools.
- 5. These tools shall not be used in areas where flammable gases or vapors are present in the atmosphere.
- 6. Only tools which are provided with a shield or muzzle guard should be used. This shield or guard should be of a size, design and material that will effectively confine flying particles and prevent escape of ricocheting studs and pins.
- 7. No tool shall be loaded unless it is being prepared for immediate use, nor shall a loaded tool be left unattended.
- 8. Each tool should be tested each day before loading, to see that the safety devices are in proper working condition and to assure that the tool is clean and that all moving parts operate freely.
- 9. At predetermined intervals (depending on manufacturer's recommendations) the tool shall be completely dismantled and carefully inspected for wear on the safety devices by a qualified person familiar with the tool. Worn parts shall be replaced before the tool is used again.
- 10. It is recommended that factory authorized service (by a representative or by mailing the tool to the factory) be utilized for the inspection, necessary repairs and replacement parts. A dated and signed record of the manufacturer's most recent inspection, service, or repairs should be available with, and identified to, each tool. It is mandatory that major repairs of defective tolls be made only by the manufacturer or his authorized service.
- 11. All explosive actuated tools shall be inspected, cleaned and stored in a safe place after each day of service. No tool shall be stored loaded. Tools must be stored with barrels removed or breech open.
- Easily pierced material, or materials of unknown resistance to piercing, shall be backed, where practical, with a box of sand or wood at least four inches (4) thick and of adequate area.
 Precautions must also be taken to prevent exposure to falling or flying fragments. (Two inches (2) of concrete is easily pierced)

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- 13. Adequate eye, head, face and/or other appropriate personal protective equipment, as necessitated by working conditions, shall be utilized by the operators and persons working in the area.
- 14. Studs or pins shall be specifically designed for use with the tools.
- 15. Pins or studs should never be fired into cast iron, high carbon, heat treated steel, or armor place, think slate, marble, glass, live rock, glazed brick or tile, terra cotta or other brittle substances, or where the composition is unknown.
- 16. Studs or pins should not be fired into materials such as brick or concrete, closer than three inches(3) from the edge or corner, nor into steel surfaces closer than one half inch (1/2) from the edge.
- 17. Cartridges or shells should be kept in the original containers, in separate metal containers, or in the carrying case provided with the tool.
- 18. Cartridges, of varied charges or force, shall be kept segregated from each other.
- 19. Proper precautions shall be taken, as outlined by manufacturer, in the event of a misfire, or "dud" cartridge.
- 20. Proper signs and barricades shall be provided when shooting into walls or floors with personnel working on the other side.
- 21. Powder actuated tools must always be handled like firearms, with hands clear of the muzzle, and barrel pointed away from all persons, especially when the tool is being closed or assembled after loading.

E. Abrasive Wheels and Tools

- 1. Wheels shall be stopped when adjusting guards or work rests or when servicing the equipment.
- 2. Floor and bench-mounted grinders shall be provided with a work rest and the work rest shall be kept within one-eighth inch (1/8) from the surface of the wheel.
- 3. All abrasive wheels should be closely inspected before use and ring-tested before mounting to ensure they are free from cracks or defects.
- 4. Standard guards will be installed and used on grinding wheels in accordance with the manufacturer's specifications and state and federal codes.
- 5. Abrasive wheels should be kept well dressed and excessively worn or damaged wheels shall be replaced prior to use.

F. Woodworking Tools

- 1. Cracked or defective saw blades, cutters or knives on power equipment shall not be used.
- 2. Woodworking tools shall not be left running when unattended.
- 3. Material being cut should be firmly held against back guide or fence and should be cut with a single, steady pass.
- 4. The operating table and surrounding area should be kept clean and clear of all debris.
- 5. When cutting long stock, extension tables and a helper should be provided to assist operator.
- 6. Band saw blades shall be fully enclosed except at point of operation.
- 7. Circular cross cut and rip saws shall be provided with a hood guard, splitter and anti-kickback device. The hood should adjust itself automatically to the thickness of and remain in contact with the material being cut. All circular saws shall be provided with a hood guard.
- 8. Exposed parts of the saw blade under the table should be properly guarded.

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- 9. All swing cutoff and radial saws which are drawn across a table shall be equipped with limit stops to prevent the saw from traveling beyond the edge of the table.
- 10. Swing cut off saws should have a guard completely covering the upper half of the saw.
- 11. Planners and jointers should be fully guarded.

G. Drills

- 1. Care shall be taken to prevent clothing from being wound around the drill. Sleeves buttoned at wrist or shot sleeved shirts shall be worn.
- 2. Material being drilled should be clamped or held down to prevent spinning with the drill.
- 3. Provide against damage and injury if the bit is long enough to pass through the material.

H. Sanders

- 1. Sanders should be moved away from the body when used.
- 2. Dust may create an explosion hazard and open flames and sparks shall be guarded against.
- 3. Respirators and safety goggles should be provided and used whenever needed.
- 4. Portable drills and saws shall not be operated with the switch or trigger locked in an ON position.
- 5. The power control for woodworking equipment should be located to prevent accidental starting and to enable the operator to cut off the power without leaving his operating position.
- 6. Operators exposed to harmful dust, as when cutting concrete, tile or stone, shall wear an approved type respirator.
- 7. Saws should not be jammed or crowded into the work. Green or wet material should be cut slowly with caution.
- 8. All material being cut should be checked for nails, hard knots, etc.
- 9. Safety goggles and kickback aprons should be provided for and worn by operators.
- 10. When ripping short stock, the use of a pusher stick, block or other safe means shall be used.



Vehicle Safety Policy

Section 34

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VEHICLE SAFETY POLICY

All employees operating company vehicles or operating personal vehicles on company business are subject to the following policy:

- a) You are authorized only to operate the vehicle assigned to you by your supervisor. Vehicles should be used only for conducting the necessary company business that you have been specifically assigned. Supervisors must approve all tasks requiring the use of company vehicles before they are performed.
- b) You must have a valid driver's license and the correct license needed for the vehicle you have been assigned. Notify your supervisor and **DO NOT OPERATE THE VEHICLE** if you are not properly licensed.
- c) **NEVER OPERATE A VEHICLE** unless you have received training in the inspection, operation and maintenance of the vehicle you have been assigned and understand what is required of you.
- d) Inspect your assigned vehicle before and after each trip following the established company procedure. NEVER operate a vehicle that does not pass your inspection. Document the results of your inspection on the appropriate form and notify your supervisor.
- e) Be sure all necessary documentation (driver's license, owner card, insurance card etc.) is in the vehicle before it is used.
- f) Seat belts and shoulder harnesses, if installed, must be worn by drivers and passengers at all times. DO NOT operate a vehicle unless you and your passengers are wearing safety belts and shoulder harnesses.
- g) DO NOT allow anyone to operate your assigned vehicle or be a passenger unless authorized by your supervisor.
- h) Immediately notify your supervisor of any legal citations received while operating a vehicle on or off the job.
- i) Report all accidents following established company procedures.
- j) Observe the company "Substance Abuse" policy at all times. Do not operate a vehicle under the influence of alcohol, illegal drugs or hazardous prescription medication. Do not ride with anyone under the influence of alcohol, illegal drugs or hazardous prescription medication.
- k) Obey all traffic laws, and operate your vehicle in a safe and courteous manner at all times.

President

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SAFETY BELT USE POLICY

This company recognizes that safety belts save lives and reduce the severity and cost of accidents. Use of available safety belts will be a part of our company safety and health program.

We are therefore implementing this safety belt usage policy:

If available, seat belts shall be used when traveling on business. Managers and supervisors are expected to demonstrate their commitment to, and support of, this policy by their strict adherence to it.

The following guidelines apply to all employees and to all occupants of vehicles driven by employees on official business:

- a) Occupants shall use the available restraints in employer-owned, leased, or rented vehicles whenever such vehicles are in use, and also in personal vehicles when used for official business.
- b) Belt systems in all vehicles are to be maintained so that they are clean, easily accessible and in good working order.
- c) New employees will be required to sign a pledge to wear safety belts as a condition of employment.
- d) Safety belt use shall be enforced in the same manner and with the same enforcement tools as any other work rule.
- e) Employees will be instructed on this policy at new employee orientations and driver training, and then sustained through ongoing employee awareness training and communications that encourage employees and their families to wear safety belts on and off the job.
- f) The implementation of this policy will be the responsibility of appropriate line management. Compliance with this policy, enforcement problems, achievements and ideas for strengthening the policy will be reviewed in six months and thereafter on a regular basis.

President

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EMPLOYEE SAFETY BELT USE PLEDGE

I shall use the available restraints in employer-owned, leased, or rented vehicles whenever such vehicles are in use, and also in personal vehicles when used for official business; and I will encourage passengers to do the same.

I will ensure that safety belt systems in my assigned vehicles are maintained so that they are clean, easily accessible and in good working order.

I understand that safety belt use shall be enforced in the same manner with the same enforcement tools as any other work rule.

Employee Name

Employee Signature

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CELL PHONE/WIRELESS DEVICES USE POLICY

The purpose of this policy is to protect your safety by banning you from using cell phones and other wireless devices when driving that may cause distractions that prevent you from concentrating 100 percent on safe operation of the vehicle and thus lead to accidents.

RULES FOR ALL WORKERS

- A.) Ban on Hand-Held Wireless Communication Devices. When you are on duty and driving, you **MAY NOT** use a Hand-Held wireless communication device of any type. This includes not only hand-held cell phones, but also text pagers, two-way radios and other wireless devices.
- B.) Scope. The ban on the use of wireless communication devices above applies:
 - a. To all vehicles operated by workers while on duty, whether owned by the company or the individual worker;
 - b. To all wireless devices, whether owned by the company or by the individual worker; and
 - c. To all conversations, whether personal or business-related; and
- C.) Handling Calls When Driving
 - a. Incoming Calls: Make sure your phone has caller ID and/or voice mail. If the phone rings, don't answer it unless and until you pull over in a safe spot (or let a passenger answer the call). If it's urgent, you may accept or return the call, provided that you remain parked off the roadway. You may not resume driving until the conversation ends.
 - b. Outgoing Calls: You may not make outgoing calls while driving. If you want to place a call, pull over in a safe spot first.

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EMPLOYEE CELL PHONE/WIRELESS DEVICE USE PLEDGE

Effect of Policy: Violations of the foregoing rules will be considered a serious offense and may result in the imposition of discipline up to and including termination.

Reminder: The use of cell phones and other wireless devices while driving leads to distractions that can result in traffic accident. So, while we cannot force you to adhere to these rules when you are not on duty, we strongly urge you to do so for your own safety and well-being and that of family, friends and third parties on the roadways.

I understand that the cell phone/wireless devices use shall be enforced in the same manner with the same enforcement tools as any other work rule.

Employee Name

Employee Signature



Violence In The Workplace

Section 35

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Introduction

Drilling Service Company recognizes the value of being the employer of choice and strives to create a work environment that coincides with that value. Employees should never experience violence, threats or intimidation in the normal course of their work experience at Drilling Service Company.

Workplace violence usually involves a threat of violence, or a physical act of violence resulting in a fatal or nonfatal injury, by a current or former worker, supervisor or manager; a current or former spouse or lover; a relative or friend; or some other person who has a dispute involving a worker of the workplace. Drilling Service Company maintains a no-tolerance policy on Violence in the Workplace.

Accountability

All employees are responsible to report any acts of violence, threats, intimidation or inappropriate behavior. Supervisors at all levels must maintain a zero tolerance policy for violence in the workplace.

Displays of violence, intimidation or threats that are not recorded and managed appropriately may develop into a much larger problem.

Violence in the Workplace Best Practices

- 1. Effectively communicating the Drilling Service Company anti-violence policy to all workers, supervisors or managers. (especially new hires)
- 2. Continually improve management and workers communicate with each other.
- 3. Increasing awareness by workers, supervisors and managers of the warning signs of potential workplace violence.
- 4. Controlling access to, and freedom of movement within, the workplace by non-workers, including recently discharged workers or persons with whom one of our worker's is having a dispute.
- 5. Recommend counseling to workers, supervisors or managers who exhibit behavior which may lead to physical or verbal abuse of co-workers.
- 6. Ensure that all reports of violent acts, threats of physical violence, verbal abuse, property damage or other signs of strain or pressure in the workplace are handled effectively by management and that the person making the report is not subject to retaliation by the person making the threat.
- 7. Ensure that worker disciplinary and discharge procedures address the potential for workplace violence.
- 8. Insubordination or other disrespectful conduct.
- 9. Possession of dangerous or unauthorized materials, such as explosives, firearms or weapons, in the

workplace



Welding & Cutting

Section 36

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General

- A. Welding/cutting equipment shall be inspected before use. Flash back devices shall be attached between the regulators and both the oxygen and acetylene hoses.
- B. Work area shall be inspected for flammable solvents, vapors and gases.
- C. Flammable and combustible materials shall be removed or covered.
- D. Suitable fire extinguishing equipment shall be immediately available in the work area.
- E. A fire watch will be posted during welding/cutting operations and for one-half hour following these operations, when conditions make it appropriate.
- F. Identify if work will be in a confined space, if so; follow confined space and entry work procedures found in the Confined Space Section of this manual.
- G. Identify the type of metal to be worked on and protective coatings that have been applied to the metal.
- H. Identify what type of respiratory protection is required, if applicable, and other types of personal protective equipment to be used.
- I. The past contents of drums, tanks, barrels, piping or other containers shall be ascertained. Containers shall be thoroughly cleaned so that no flammable vapors will be present.
- J. Employees should be alert for potential hazards created by other employees in the work area.
- K. Adequate ventilation (natural or mechanical) must be provided for all welding, cutting, brazing and related operations.
- L. The following have low Permissible Exposure Limits. If these materials are encountered in welding, cutting or brazing operations refer to a material safety data sheet (MSDS). Conduct personal sampling as necessary to determine if additional ventilation and/or approved respirators are required.

Antimony	Cobalt	Nickel
Arsenic	Copper	Ozone
Barium	Fluorine Compounds	Selenium
Beryllium	Lead	Silver
Cadmium	Manganese	Vanadium
Chromium	Mercury	Zinc

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Compressed Gas Cylinders

- A. Cylinders shall be secured in an upright position at all times.
- B. When cylinders are transported by powered vehicles, they shall be secured in a vertical position.
- C. Valve protection caps shall be in place at all times, except when cylinders are connected and being used.
- D. When cylinders are hoisted, a cradle, sling board, pallet or other suitable platform shall be used. Cylinders shall not be hoisted or transported by means of magnets or choker slings.
- E. Never drop cylinders or permit them to strike one another violently, or use them as rollers or supports, even when empty.
- F. Regulators shall be removed and valve protection caps put back in place before cylinders are moved unless cylinders are firmly secured on a special carrier intended for this purpose.
- G. Cylinder valves shall be closed when work is finished, when cylinders are empty, or when cylinders are moved at any time.
- H. Cylinders of acetylene and other fuel gases shall not be stored with cylinders of oxygen. They shall be separated by a minimum distance of 20 feet or by a non-combustible barrier at least five feet high having a fire resistance rating of at least one-half hour.
- I. Cylinders containing oxygen or acetylene or other fuel gases shall not be taken into confined spaces. Fuel gas cylinders shall be placed with valve end up.
- J. Cylinders shall be located so as not to be subject to sparks, hot slag, flame, hot metal or other sources of heat or artificial heat. When this is impractical, fire resistant shields shall be used.
- K. No person other than the gas supplier shall attempt to mix gases in a cylinder.
- L. No one except the owner or person authorized by the owner of cylinder shall refill a cylinder. Cylinder contents shall not be used for purposes other than those intended by the supplier.
- M. Cylinders shall be placed where they cannot become part of an electrical circuit.
- N. No damaged or defective cylinder shall be used.
- O. Instructions Craft Superintendents shall thoroughly instruct employees in the safe use of fuel gas, as follows:
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- 1. Before a regulator is attached to a cylinder valve, the valve shall be opened slightly and closed immediately. (This action is termed "cracking" and is intended to clear the valve of dust or dirt that might otherwise enter the regulator.) The person cracking the valve shall stand to one side of the outlet, not in front of it. The valve of a fuel gas cylinder shall not be cracked where the gas would reach welding work, sparks, flame or other sources of ignition.
- 2. The cylinder valve shall always be opened slowly to prevent damage to the regulator. For quick closing, valves on fuel gas cylinders shall not be opened more than 1½ turns. When a special wrench is required, it shall be left in position on the stem of the valve while the cylinder is in use so that the fuel gas flow can be shut off quickly in case of an emergency. In the case of manifold or coupled cylinders, at least one such wrench shall be placed on top of a fuel gas cylinder, when in use, which may damage the safety device or interfere with the quick closing of the valve.
- 3. Fuel gas shall not be used from cylinders through torches or other devices which are equipped with shutoff valves without reducing the pressure through a suitable regulator attached to the cylinder valve or manifold.
- 4. Before a regulator is removed from a cylinder valve, the cylinder valve shall always be closed and the gas released from the regulator. If, when the valve on a fuel gas cylinder is opened, there is found to be a leak around the valve stem, the valve shall be closed and the gland nut tightened. If this action does not stop the leak, the use of the cylinder shall be discontinued, and it shall be properly tagged and removed from the work area. In the event that fuel gas should leak from the cylinder valve, rather than fuel the valve stem, and the gas cannot be shut off, the cylinder shall be properly tagged and removed from the work area. If a regulator attached to a cylinder valve will effectively stop a leak through the valve seat, the cylinder need not be removed from the work area.
- 5. If a leak should develop at a fuse plug or other safety device, the cylinder shall be removed from the work area.
- 6. A hammer or wrench shall not be used to open cylinder valves. If valves cannot be opened by hand, the supplier shall be notified.
- 7. Oxygen reacts violently in the presence of oil or grease. Oxygen fittings, cylinders, caps, couplings, regulators, hose and other apparatus shall be kept away from and free of oil and grease. Do not handle oxygen cylinders while wearing oily gloves.
- 8. Oxygen shall not be used as a substitute for compressed air.

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Pressure Reducing Regulators

- 1. Pressure regulators including the gauges, shall be in proper working order while in use. If not, remove from service.
- 2. Regulators shall be an approved type for the type of gas to be utilized.
- 3. The working pressure of acetylene shall not be adjusted above 15 psig as it becomes more unstable to safely use.
- 4. When a pressure reducing regulator is attached to a compressed gas cylinder, the cylinder valve should be opened just slightly at first so that the regulator can take on pressure slowly, after which the valve may be turned open to its normal position. If the regulator takes on pressure to suddenly it can damage the regulator and pressure gauges. The operator shall stand to the side of the glass covered gauges and not in front of them.

Hose and Hose Connectors

- 1. Fuel gas hose and oxygen hose shall be easily distinguishable from each other. The two shall not be interchangeable.
- 2. Unnecessarily long lengths of hose should be avoided. The hose needs to be protected from being run over by equipment or other damage.
- 3. All hose shall be inspected at the start of the shift for leaks. Immersing in water under normal pressure is a method to check for leaks. Hose when worn at connection should be cut off and connections reinserted. Breaks in the hose should be cut out and a splice inserted. New connections shall be installed by a knowledgeable person using proper/approved compression fittings. Repairing hose with tape is prohibited.
- 4. Defective hose or hose in doubtful condition shall not be used. Hose subjected to a flashback shall be taken out of service.

Arc Welding and Cutting

- 1. Whenever practicable, all arc welding and cutting operations shall be shielded by noncombustible or flameproof screens which protect other personnel from the direct rays of the arc.
- 2. Instructions Employers shall instruct employees in the safe means of arc welding and cutting as follows:
- 3. Equipment shall be inspected before use at the start of each shift. Defective equipment is to be reported to the supervisor and removed from service until repaired.
- 4. Electrodes shall be removed from unattended electrode holders. Holders shall be placed so they cannot make electrical contact with personnel or conducting objects.
- 5. Hot electrode holders shall not be dipped in water; to do so may expose the arc welder to electric shock.

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- 6. When the arc welder or cutter has occasion to leave his/her work for any appreciable length of time, or when the arc welding machine is to be moved, the power supply switch to the equipment shall be opened.
- 7. Modification to welding equipment shall only be performed by the equipment manufacturer or a qualified service technician.
- 8. So that dangerous concentrations of toxic gases will not be produced, operations involving chlorinated hydrocarbons shall be so located that no vapors from those operations will reach or be drawn into the atmosphere surrounding any welding operation.
- 9. Only manual electrode holders designed specifically for arc welding/cutting and are of capacity capable of safely handling the maximum rated current required by the electrodes shall be used.
- 10. All arc welding/cutting cables shall be completely insulated, flexible type and capable of handling the maximum current requirements of the work.

Personal Protective Equipment

- 1. Welders and helpers must wear the appropriate filter lenses, eye and face protection.
- 2. Metal flakes or particles in the eye should be promptly removed, in order to prevent rust ring formation, by a qualified medical person.
- 3. Clothing should be free of oil and grease.
- 4. Some types of welding may require the use of flame resistant gauntlets, gloves, caps, shoulder covers, leggings, high boots or flame resistant apron.

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To be issued for all temporary hot work including gas/electric welding and cutting; blowtorches, grinding wheels and cutting discs. Hot work to be carried out only by people trained in use of equipment, hazards and precautions to prevent fires.

Permit No:				
Description of work:				
Equipment to be used:				
Location of work:				
Person in control of work (name):				
Fire precautions required (tick boxes below	<i>v</i>):			
 Smoke/heat detectors to be disconnected/covered for duration of work Area cleared of all loose combustible material. Remove or protect flammable liquids or gases. Wooden flooring covered with sand or other non-combustible material Welding, cutting or grinding work screened with non-combustible 	 Turn off fixed gas supply or protect piping Flash back arrestors fitted to gas cylinders Gas cylinder secured in upright position Other precautions (specify) 			
 material Remove combustible material from other side of wall/partition (danger from conducted heat) 				
 Appropriate fire extinguishers must be provided in the working area People carrying out hot work must be informed of (a) what to do if they discover a fire (b) how to raise the alarm (c) evacuation procedure and assembly point see Emergency Instructions for appropriate building Smoke/fire detectors must be reconnected/uncovered immediately after work is completed 				
Permit issued to (name):				
Of (company name):				
Permit valid from (time):	To (time).			
Valid on (date):				
Issued by (name):	Date of issue:			
PERMIT CLEARANCE AND RETURN				
The above work area has been checked of Signed (name):	ne hour after completion of work Date: Time:			