Jim Berry Contractors, Inc.
Health and Safety Manual

To: All Jim Berry Contractors, Inc. Employees

After reading the Jim Berry Contractors, Inc. HSSE Manual, if you have any questions, ask any Supervisor or member of Management for clarification. After all questions have been answered, sign this page and return to Human Resources.

I have received the Jim Berry Contractors, Inc. Safety Manual. Before I conduct any task I will understand all Jim Berry Contractors, Inc. safety policies. I understand that working safely is the key to efficient production, my personal safety and the safety of my co-workers. I will bring to the attention of my Supervisor or member of Management any safety concern I may have.

_____ _____
Employee Signature Date

_____ _____
Jim Berry Contractors, Inc. Signature Date

White Oak, TX

SAFETY AND HEALTH MANUAL
for
Managers, Supervisors,
Employees and Subcontractors

Date: March 2011

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Health and Safety Policy Statement

Jim Berry Contractors, Inc. (hereafter Jim Berry Contractors) will strive to provide a safe work environment for all of its employees, subcontractors, and clients. Safe working conditions are achieved through efficient communication, thorough hazards analysis and continuous training. In addition, Jim Berry Contractors will adhere to all regulatory requirements (state, federal, and local), and where these regulations are insufficient, will work to maintain best-industry practices.

Jim Berry Contractors believes that all injuries are preventable; therefore, we will continually strive to prevent injuries from occurring. Management also recognizes that every employee shares in the responsibility for safety on the job; consequently, safe work practices and timely reporting of incidents and potential accidents (i.e., near misses and unsafe conditions) are a condition of employment.

Everyone is encouraged to provide suggestions and establish high personal goals for eliminating accidents and injuries. Participation in the meetings to discuss the safety aspects of each assignment is mandatory. If the source of a hazard cannot be eliminated, the use of special procedures, safety devices, or protective equipment and clothing must be utilized to reduce the exposure potential; if these measures cannot sufficiently reduce the potential for harm, then the job will not be performed.

Jim Berry Contractors will take a **proactive approach** to conducting the safety and health program. Incidents and near misses will be investigated, and the pertinent information that is uncovered during the investigation will be distributed or discussed during the following safety meeting. Please refer to the Accident Investigation section for further detail.

Health and Safety Training

Training employees is a means for taking a proactive approach to safety in the workplace. The goal is to train employees on issues that may prevent or eliminate incidents from occurring. When employees take this knowledge and couple it with safety behaviors, the result is a safe work environment.

Jim Berry Contractors-wide safety training will be held on a regular basis. While Job Safety Analyses are considered jobsite hazard assessments, they are also considered training. JSAs are conducted daily or as the tasks change. A training schedule will be developed to comply with state and federal regulations. Listed below are some examples of subjects that will be trained upon annually:

- Hazard Communication
- Personal Protective Equipment
- Incipient Fire Safety; Protection and Prevention
- Bloodborne Pathogens
- First Aid/CPR
- Proper Lifting Techniques/Manual Lifting
- Electrical Safety
- Office Safety
- Continuing Driving Safety Awareness Classes and Vehicle Safety
- Emergency Procedures to include Hazardous Materials
- Substance Abuse
- Lockout/Tagout
- Fall protection
- Hazardous Materials
- Respiratory Protection
- Hydrogen Sulfide
- Hearing Conservation

As the need arises, additional topics will be added to the list. In addition, job-specific training will be provided whenever applicable.

If a property incident, injury or near-miss occurs on a company job site, then the root cause or determining factor in the incident will be addressed at the next safety meeting or sooner if necessary.

Training classes shall be long enough to ensure employee comprehension. In addition, short quizzes will be given periodically to test employees' retention of the material.

Safety Training Attendance Is Mandatory!

General Safety & Health Provision Rules

Note: Many of the topics addressed briefly in this section are discussed in more depth within the manual. These rules apply to all Jim Berry Contractors employees, including managers, supervisors, visitors, subcontractors, and client personnel.

1. Each employee is required to adhere to the safety rules listed in this manual in order to fulfill their responsibility to the safety program. This means that no one is to work in an unsafe situation or condition, and if an unsafe situation or condition exists, then this must be reported and corrected immediately. If this includes shutting the job down, then shutting the job down is permissible.

2. All work-related injuries or illnesses must be reported ***immediately***. This includes first aid (minor injury) incidents. "Immediately" is defined as within 15 minutes of the incident.

3. Any vehicle- and/or equipment-related incident must be reported ***immediately***.

4. Any injury that occurred off the job and could result in lost work time must be reported to a supervisor as soon as possible, and no later than two hours prior to the next work shift.

5. All near-misses must be reported to the supervisor before the end of the shift in which they occurred; near-misses will be documented on a Near Miss report. Near-misses will be discussed with all employees during the next safety meeting.

6. Attempts shall always be made to eliminate possibilities of environmental damage. Releases and spills shall be reported immediately and remediate according to the MSDS recommendations. All wastes shall be disposed of properly in approved waste disposal sites/reclamation centers.

7. Jim Berry Contractors employees will follow all client rules and policy recommendations. When there is an absence of these rules, Jim Berry Contractors will set the high safety standard and inform management of this lack of safety initiatives.

8. Horseplay or fighting is not permitted at any location.

9. All persons operating vehicles for Jim Berry Contractors in any capacity will wear seat belts.

10. Never run on the job unless there is an emergency.

11. Equipment, materials, and work areas shall be maintained in such a fashion as to minimize hazards. In other words, maintain clean work areas and equipment.

12. Avoid skin contact with all chemicals, beware of other means of bodily entry, and take the proper precautions.

13. The proper personal protective equipment shall be worn at all times. Jim Berry Contractors requires the use of PPE.

14. The illegal use, possession, transportation, or sale of drugs, alcoholic beverages, firearms, deadly weapons, or explosives while on company or client property is prohibited. The use of prescribed drugs or any over-the-counter drug that might impair your ability to work safely must be reported to your supervisor before work.

15. Only qualified employees are allowed to operate equipment. The employer shall permit only qualified personnel by training or experience to operate company equipment and machinery.

16. Riding in the bed of trucks or in other non-approved areas is prohibited. "Non-approved areas" include areas that are not protected by a seatbelt.

17. Use the three-point contact procedure when getting on or off of any equipment. Do not jump off equipment unless following emergency evacuation procedures involved with power line strikes.

18. Do not walk on pipe or any other non-approved walking/working surface.

19. Smoking is allowed only in designated areas. Smokers are not allowed to take smoking materials into non-designated areas.

20. Whenever a safety device is removed from service and/or defeated, the appropriate supervisor shall be notified, the device tagged, and the action properly documented. If equipment is still operating, restrict entry and monitor continuously. Document all actions.

21. No work may be started in any area or on any equipment without the knowledge and consent of the appropriate supervisor/client representative. ***Never operate equipment that you are not trained, certified and authorized to operate.***

22. Job Safety Analyses are to be conducted before each day's tasks begin or as major work scope changes. All persons affected by the work will attend the JSA meetings. If workers show up after the meeting has been conducted, then he must be briefed as to the JSA findings and the Supervisor is responsible for this safety briefing.

23. Frequent inspections or analysis' of the work environment involves a variety of work site examinations by competent persons in order to identify existing hazards and conditions and operations in which changes might occur to create new hazards.

24. Operation of equipment having a, "DANGER! DO NOT OPERATE." tag is prohibited.

25. All energy will be controlled through appropriate Lockout/Tagout procedures.

26. Do not attempt to do a job alone that takes at least two people to do correctly. The Supervisor will periodically check on persons working alone. All persons working in remote areas must have a form of communication to summon emergency services if needed.

27. Finger rings, loose clothing, unsecured long hair, wristwatches, and other loose accessories should not be worn when within arm's reach of any unguarded operating machinery or electrical equipment

28. Use only proper tools and equipment maintained in good working condition.

29. Gasoline must not be used for any purpose other than motor fuel. No employee will siphon gas by mouth, pour into the fuel tank of an engine that is running, or use as a cleaning solvent. Gasoline will be transported in approved, metal containers.

30. Use proper lifting techniques when lifting or carrying objects. Use legs to lift, keep load close to body, keep feet shoulder-width apart, and ask for assistance to lift heavy objects are a few reminders in proper lifting.

31. Erect barricades around hazardous work areas such as holes in decking, trenches, overhead hazardous work, open unattended vessels, or hazardous storage.

32. Fall protection shall be worn when working at heights greater than 6 feet.

33. Pay close attention to slip, trip and fall hazards and eliminate those hazards immediately.

34. If a normal procedure must be changed to accommodate the work situation, contact client and Jim Berry Contractors management before this change is made.

35. All work areas will be equipped with properly working fire extinguishers.

36. Visitors must follow all applicable safety rules as well as be authorized to be in any area.

37. Do not introduce any flame, spark, or sufficient heat (to include non-intrinsically safe equipment) into areas that have a potential for flammable materials/atmospheres. Follow Hot Work Procedures.

38. Follow Defensive Driving techniques when operating motor vehicles. Follow all applicable local, state and federal transportation laws.

39. Do not enter confined spaces unless proper procedures have been followed.

40. All jobsites will have first aid and eye wash equipment readily available and these supplies shall be in good condition.

41. Communication in all aspects is highly important. If you do not understand any directive or procedure, say so. Relay all occurrences that have an effect on safety to supervisors whether you think the occurrence is important or not. Always adhere to the highest safety standards.

Subcontractor Guidelines and Procedures

Jim Berry Contractors does employ subcontractors. The Subcontractor Guidelines and Procedures, as well as all other safety requirements, are binding upon all subcontractors. Adherence to these guidelines and procedures are a prerequisite for work on all Jim Berry Contractors projects. Furthermore, all company subcontractors will abide by Jim Berry Contractors client requirements. After all subcontractor employees have read and understand these guidelines and procedures, sign the Subcontractor Policy Acknowledgement and return to the Jim Berry Contractors office. A copy of these guidelines and procedures should be kept for reference. Failure to follow both company and client safety procedures is grounds for removal from worksite and potential termination of all future work relationships.

An incident-free project is a high priority for Jim Berry Contractors. Maximum subcontractor management and employee attention shall be placed on this priority.

Each subcontractor is responsible for the safety of his employees. The Subcontractor is responsible for the action or inactions of his employees. Subcontractor is responsible for protecting his employees from the byproducts of work conducted, i.e. fumes, silica, and chemical exposure.

All subcontractor employees will work in conjunction with Jim Berry Contractors employees in order to ensure workplace safety. All parties, whether individually or as a group, are responsible for stopping work if a hazard exists. Subcontractors are responsible for bringing safety concerns to Jim Berry Contractors management.

These guidelines and procedures are minimum requirements and are not a substitute for an active subcontractor safety program. Likewise, each subcontractor will institute safety per job/client specific requirements. Jim Berry Contractors will assist in fulfilling client-specific requirements for subcontractors but are not wholly responsible.

Subcontractors will attend and participate in ROW Compliance Service's Jobsite Safety Analysis (JSA) conducted each day at every job site. This attendance does not take the place of the subcontractors' regularly scheduled safety meetings/training. Jim Berry Contractors is not responsible for training subcontractor employees.

Subcontractors will abide by all local, Federal, and State laws.

Subcontractors' suppliers will abide by the same conditions herein.

Subcontractors will designate a Safety Representative for each job. This person will work in conjunction with Jim Berry Contractors Management and Safety. The Safety Representative must be qualified as deemed within same industry.

Subcontractor will report all near misses and incidents to Jim Berry Contractors immediately.

Subcontractor will maintain the following records, and these records are subject to Jim Berry Contractors inspection:

1. Record of all industrial injuries;
2. Individual injury reports;
3. Safety training rosters;
4. Job site inspection reports;
5. Results of any OSHA or regulatory agency report;
6. Subcontractor HSE Employee Manual;
7. All other safety-related documentation.

Jim Berry Contractors reserves the right to employ subcontractors or discontinue employment of subcontractors based on workplace safety history.

Subcontractors are responsible for providing trained employees that are willing to follow all safety regulations. "Trained employee" is an employee that is capable of efficiently completing assigned tasks without causing injury to others or property damage.

General Safety Rules for Subcontractors

The following rules are guidelines that reinforce the subcontractors' safety programs. These guidelines are not intended to provide the exact, written context of the subject matter. The following information highlights key information. The final application of all safety requirements is the sole responsibility of each Subcontractor.

- Unsafe workmanship, hazardous risk taking, and horseplay will not be tolerated at any time.
- Subcontractors will limit presence to those areas which are deemed within subcontractors' scope of work.
- Subcontractors will provide necessary facilities to meet the needs of their employees.
- Subcontractor will provide adequate storage for equipment brought to the job. Jim Berry Contractors is not responsible for subcontractor equipment.
- Fighting, gambling, possession of firearms, possession or use of alcohol or unauthorized drugs will be reasons for subcontractor removal from jobsite.
- Smoking is allowed in authorized areas only.

- All personal protective equipment will be worn on the job as hazards and/or the client dictate. At a minimum, hard hat, steel toe foot protection and safety glasses will be worn.
- Grinding shields will be worn when grinding or buffing.
- Splash goggles will be worn when handling chemicals.
- All vehicles operated on Jim Berry Contractors or client property will be operated in a manner that reduces the chance for injury or property damage.
- Good housekeeping is mandatory.
- Subcontractors will provide first aid services for their employees.
- If friable asbestos materials are found at a jobsite, work will cease and this discovery reported to the Jim Berry Contractors Supervisor. Do not disturb asbestos unless properly trained and the proper equipment is available.
- Fall protection is required anytime an employee is exposed to a 6 feet fall hazard or more.
- Defective or damaged tools or equipment shall not be used.
- Tools and equipment shall be used for the purpose for which they were designed.
- Ground-fault circuit interrupters will be used for all 120-volt service.
- A competent person will inspect all work areas for safety hazards, report hazards to Jim Berry Contractors if found, and assist in the correction of any hazard.
- Combustible materials and hazardous chemicals will be properly stored.
- Subcontractor will ascertain, before work begins, as to whether or not a work permit is required or special considerations are to be met.
- Compressed gas cylinders will be stored properly by tying back and installing caps on unused bottles.
- Care will be taken to minimize trip hazards.
- Equipment will not be fueled while it is hot.
- Cell phones will not be used when the vehicle is in motion.
- Subcontractors will provide fire extinguishers as the job situation dictates.

- Subcontractors will not fight fire beyond the incipient stage.

- Subcontractors will participate in lockout/tagout by applying their locking device, and by being available to remove the lock and supervise the subsequent start up.

- Subcontractors will be aware of emergency procedures and must be capable of summoning emergency assistance.

- All potential underground facilities will be marked and the location of each known before the ground is broken more than 6 inches.

- Unless authorized in writing, subcontractors are not allowed to operate Jim Berry Contractors equipment.

- If a subcontractor does not completely understand the task at hand, he will stop and ask for further clarification from the subcontractor supervisor and then the Jim Berry Contractors supervisor if enough information is not obtained.

- Equipment will be chocked when parked on uneven terrain, and the emergency brake must be set.

- Sparks, heat, flame or non-intrinsically safe equipment will not be introduced into areas that may have explosive or hazardous atmospheres. If sparks, heat, flame or non-intrinsically safe equipment must be introduced into these areas, a Hot Work Permit must be completed.

Record Keeping

Documentation and record keeping is a critical component of any effective safety program. Furthermore, documentation is necessary to substantiate the training and other performance markers the company maintains to support the demands of federal regulations, and operator/client requirements.

OSHA Logs (OSHA 300 & 300A Logs)

OSHA logs are used to document work-related injuries, illnesses, and fatalities. Proper record keeping is paramount to maintaining accurate logs. Employees charged with the responsibility to maintain the company's OSHA logs must be properly trained on the federal recording protocols prior to assuming the responsibility.

Only recordable cases are added to the OSHA 300 Log. The employee responsible for maintaining the log must ensure that an injury or illness meets the following stipulations:

1. Injury or illness is work-related
2. Injury or illness is a new case (new injury/illness—not the result of a previous recordable)
3. Injury or illness meets one or more of the general recording criteria

Recordable cases must be investigated and documented within seven (7) calendar days of receiving information that a recordable injury or illness has occurred. An OSHA 301 Incident Report or other equivalent form must be completed within the same time period. (Follow the guidelines of the **Accident/Incident Reporting and Investigation** chapter of this manual while completing the investigation.)

At the end of the year, the employee(s) responsible for maintaining the OSHA 300 Log must complete the OSHA 300A Summary utilizing the information contained in the 300 Log. The OSHA 300A Summary must be posted from February 1st through April 30th in a visible location such that all employees can view it. The posting must be in a conspicuous place where notices to employees are customarily posted. If the document is obstructed, tampered with or otherwise damaged during the allotted timeframe, it must be replaced.

All of the relevant injury, and illness information and documentation collected, including the OSHA 300, 301, and 300A Logs) must be maintained for at least five (5) years following the end of the calendar year that the incident occurred.

ALL OSHA LOGS (300, 301, 300A) MUST BE MAINTAINED AS COMPLETELY AS POSSIBLE WITH THE INFORMATION AVAILABLE. EVERY EFFORT MUST BE MADE TO ENSURE THAT THE DOCUMENTED INFORMATION IS COMPLETE AND ACCURATE.

Additional Records

Below is a table of required records, minimum retention times, and inspection/audit frequencies. While Jim Berry Contractors does not generate all of these records at this time, work situations may change that would require additional record retention.

The Safety Department, along with Human Resources, is responsible for generating and storing these records. These records shall be stored in a manner where there is no potential for damage.

Note: When Jim Berry Contractors joins a client in completion of a work permit, the Jim Berry Contractors Supervisor shall make an attempt to obtain a copy of the permit for record keeping purposes.

Safety records are kept for the following reasons:

- Trend analysis
- Medical and health records
- Training documentation
- Audit requirements
- Legal requirements
- OSHA requirements
- Personal protective equipment requirements
- Client requirements

Required Records	Minimum Retention Period	Inspection/ Audit Frequency
Accident/Incident reports	6 years (indefinitely)	As needed
Audiometric Tests	Indefinite	Annually
Dosimetry samples	Duration of Employment + 30 years	When a change occurs
Hearing Conservation Program	3 years	As needed
Sound Level Surveys	Indefinite	As needed
Location Diagram of Sound Levels	Current	As needed
Employee notification of Dosimetry results	Duration of Employment + 30 years	As needed
Employee exposure records (including monitoring, samples, medical records)	Duration of employment + 30 years	As needed
Bloodborne Pathogen Exposure Control Plan	Current	Annually
Bloodborne Pathogen Immunization/Declination Forms	Duration of employment + 30 years	As needed

Bloodborne Pathogen Incidents and Exposures	Duration of employment + 30 years	As needed
Bloodborne Pathogen Training	3 years	As needed
CPR/1st Aid Training Records	3 years	As needed
CDL Driver Qualification File	Duration of employment + 30 Years	Annually
Confined Space Entry Permits	Current year + 1 Year	Annually
Confined Space Program Review	Current	Annually
Confined Space Training Records	3 years	As needed
Material Safety Data Sheets	Indefinitely	Annually
OSHA 5-in-1 poster	Current	Annually
OSHA citations	Current/Hold Indefinitely	Annually if applicable
Hazard Communication Program	Current	Annually
Master Chemical List	Current	Annually
Hazard Communication Training Records	3 years	As needed
HAZWOPER Incident Management Plan	Current	Annually
HAZWOPER Training Records	3 years	Annually
Employee Orientation	Duration of Employment	As needed
Job Safety Analysis (JSA)	Current + 6 months	As needed
Safety Meeting attendance	3 years	As needed
Safety Training Records	3 years	As needed
Vehicle Registration, Insurance	Current	As needed
Insulating equipment test documentation and certification	Life of Equipment	Annually
Electrical Safety Training	3 years	Annually
Emergency Alarm and Evacuation Procedures (Drills)	Current	Annually
Forklift Training Records	3 years	As needed
Daily Forklift Inspections	1 year	Daily
Lock Out/Tag Out training records	3 years	Annually
LO/TO program review	Current	Annually
Personal Protective Equipment Hazard Assessment	Current	As needed
PPE Training Records	3 years	As needed (such as change in hazards)
Respiratory Protection Program Evaluation	Current	Annually
Respiratory Hazard Assessment	Current	As needed
Respiratory Protection Procedures	Current	As needed
Respiratory Protection Training	3 years	As needed

Medical Evaluations	Duration of employment + 30 Years	Annually
Respirator Use Questionnaire	Duration of employment + 30 Years	As needed
Fit Tests	Current	As needed
Respirator Inspections	Current	Monthly
Grade D Breathing Air: 1. Purchased Air 2. Produced Air	 1. 10 years 2. 10 years	 1. Batch 2. Every 90 days or before each use
Hot Work Permits	Current, 1 – 6 months	As needed
NORM Survey	Indefinitely	As needed
H2S Training	3 years	As needed
H2S Medical Records	Duration of employment + 30 Years	As needed

Incident Procedures and Emergency Response

Jim Berry Contractors has established this program to outline the procedures to follow in the event of an accident, incident, or emergency. Accidents, incidents and emergencies are defined as injuries, releases or spills of company or client product, fires, vehicle incidents, property damage, weather related emergencies, or natural catastrophes. Accidents, incidents and emergencies are differentiated by the cause and magnitude of the event.

The following is a prioritized list of the objectives of a responder to an incident:

1. Reduce human loss and suffering

2. Minimize the loss of public or client property

3. Minimize the loss of Jim Berry Contractors property

Employee/Client/Visitor Injury Procedures

When an employee, client, or visitor is injured at a Jim Berry Contractors work-site, the Jim Berry Contractors supervisor is responsible for ensuring that first aid is administered, and, if necessary, the proper medical attention is obtained as quickly as possible. In addition, the supervisor must protect other employees and equipment from any resulting or potential hazard, and notify the Safety Coordinator, Jim Berry Contractors management, and the appropriate client representatives. The supervisor is authorized to delegate these responsibilities in the event that he is an injured party, or his obligation to administer first aid prevents him from completing the subsequent tasks mandated by the incident response.

The supervisor must adhere to the following protocol while responding to an accident or emergency that involves an injury:

1. Go to the scene of the incident immediately. Bring first aid materials and a means to record the events.

2. Secure the area and administer first aid to the best of your ability.

3. Summon outside emergency services if necessary.

4. Gather evidence in an attempt to remedy the problem. Look for the underlying causes, such as unsafe conditions or unsafe practices. Proper equipment should be available to assist in conducting an investigation.

5. Collect a statement from the injured person and any witnesses to the accident. Stress the importance of gathering the facts, and discourage employees and/or witnesses from trying to place blame or responsibility. Ask open-ended questions that encourage detailed answers, and listen for additional information in the conversations around you because unsolicited comments often have merit. Initial identification of evidence might include a listing of people, equipment, and materials involved, and a recording of environmental factors such as weather, illumination, temperature, noise, and ventilation.

6. Encourage all employees to voice their ideas for preventing similar accidents.

7. Confer with interested persons about possible solutions.

8. Take photographs of the scene whenever possible.

9. Write the accident report giving complete, accurate accounts of the accident.

10. Follow-up with recommendations to ensure conditions are corrected. Individuals should be assigned responsibilities relative to corrective actions. Lessons learned should be reviewed and communicated. Changes to processes must be placed into effect to prevent reoccurrence of events.

Evidence from an incident, such as people, positions of equipment, parts, and papers must be preserved, secured, and collected through notes, photos, witness statements, flagging, and impoundment of documents and equipment.

Response to Product Spills

While working with or around any chemical, an employee must know what engineering controls, and safe work practices have been implemented for his/her safety, and what personal protective equipment is required while performing the job.

Material Safety Data Sheets will serve as the primary source of information regarding handling, spill, contact, and clean-up procedures.

Jim Berry Contractors employees work around various chemicals while performing their job. A product release or spill is always feasible, so attention to safety and prevention is critical. These spills pose physical hazards (combustible liquid and/or gases), and health hazards (carcinogens, corrosives). Some spills require professionally trained responders (i.e. Hazwoper), so be certain to reference the appropriate MSDS whenever there is a release of product.

Response to spills and releases should adhere to the following procedures (each situation will dictate different responses based on spill types/amounts, and these are general procedures):

1. Report all spills to clients and Jim Berry Contractors immediately (degree of spill amount, reporting and related hazards are left up to the decision of client and management)

2. Summon emergency services per client and management directives.

3. Do not enter the contaminated area without respiratory and skin contact protection. Enter only if you have the appropriate training.

4. Do not try to rescue the person by holding your breath and entering the contaminated area.

5. Even with proper respiratory protection, do not enter a contaminated area without standby help.

6. As soon as the victim is in a safe area, personnel should conduct an assessment to determine if the victim is breathing and perform cardiopulmonary resuscitation (CPR) if needed.

7. Any employee who experiences a significant exposure to any hazardous substance, either liquid or vapor, must report the incident to the supervisor immediately. The supervisor ensures that the safety department has been contacted, and Safety will initiate the applicable protocol for testing and medical response.

8. If toxic materials contact the skin or clothing, remove the contaminated clothing and refer to MSDS for first aid procedures. Launder these clothes separately.

9. Clean up of spilled material is based on Material Safety Data Sheets and those persons conducting clean up will be trained and equipped to do so.

10. Personnel should avoid ditches, bell holes, ravines, and other low-lying areas where vapors, fumes, or mists may collect.

11. If necessary, evacuation should be upwind and crosswind.

Response to Fires

Jim Berry Contractors employees work in environments where there is a potential for fire. Due to this fact, response to fire situations and the reporting of these fires is necessary. **Note: Jim Berry Contractors does not employ or train fire-fighter level individuals; therefore, fighting fires beyond the incipient stage is not allowed.**

1. Notify everyone in area to evacuate and go cross and upwind to a higher elevation.

2. Call emergency response as necessary or send someone to call for emergency response and have that person report back to you as to the status of arrival. Note: Fire departments/emergency response would rather show up to a situation under control than to one that is out of control.

3. Render first aid or summon for first aid assistance.

4. Gather fire suppression equipment. Note: Never fight a fire if there is no adequate fire fighting equipment (the escape path could become blocked), or the fire is spreading beyond control. **Fight fires at the incipient (beginning) stage only. Do not attempt to extinguish a fuel source if the fuel source cannot be eliminated.**

5. Attempt to extinguish fire by aiming at base of fire and using a sweeping motion. Stay at least 4 to 6 feet away.

6. Never turn your back on the extinguished fire. Back away.

7. Stay at area to see if there is re-ignition.

8. If you are alone, and a fire situation occurs, immediately summon help before any other action is taken.

9. Document all actions and occurrences leading up to the fire and all actions taken after the fire started.

10. Have all fire suppression equipment recharged immediately.

Response to Vehicle Incidents

If you are involved in a vehicle incident:

1. Stop at once. Check for personal injuries and send or call for an ambulance if necessary. Do not leave the scene but ask for assistance.

2. Protect the scene. Set emergency signals to prevent further injury or damage.

3. Secure assistance of a law enforcement officer whenever possible. Record Officers' name.

4. Record names and addresses of all witnesses and occupants of involved vehicles. Record vehicle license numbers.

5. Do not argue! Make no statement except to proper authorities. Sign only official police reports. Do not plead guilty or admit fault.

6. Complete accident report stored in vehicle to the best of your ability.

7. Contact your employer.

8. Do not attempt to operate the vehicle. It may have damage that you are not aware of.

9. Assist the Safety Department in their report/investigation process as well as be available for all required drug/alcohol testing.

Response to Property Damage

If any company, public, private, or client property is damaged, follow these procedures:

1. Report the incident to a Supervisor/Management immediately. Even if you think the situation is not serious, the incident must still be reported.

2. Determine if damage is causing or will cause harm to persons and respond appropriately. (Example: If a fence is down and cows will get out and onto the road, then this is a situation that could cause harm to persons and does need immediate attention **or** you back over a pipeline riser and bend it slightly, potentially, the stress in the metal could cause line failure.)

3. Do not continue to operate equipment until it is deemed safe by a qualified and competent person.

4. Make repairs to the level you are competent for. Never bypass a safety measure or operate unsafe equipment.

5. Document all occurrences.

Response to Weather-Related Emergencies or Natural Catastrophes

1. Hurricanes

The Manager will monitor the phase alerts and assess the situation as the phase alerts are given. He/she will advise all personnel of the hurricane alert and designate responsibilities accordingly. Jim Berry Contractors management will notify personnel if an evacuation is necessary.

a. A Phase 1 alert will be issued when a tropical storm or a hurricane is formed that could possibly affect area operations.

b. A Phase 2 alert will be issued when it appears that a tropical storm or a hurricane is headed in a direction that will pass through or near area operations.

c. A Phase 3 alert will be issued when it is apparent the hurricane will hit the area of operations, and it is necessary to shut down area operations and evacuate all personnel.

2. Tornadoes

Jim Berry Contractors management will monitor the two-phase tornado alert system posted by weather agencies:

a. A Tornado Watch is issued when weather conditions are conducive to a tornado.

b. A Tornado Warning is issued when a tornado has been sighted in the area.

Jim Berry Contractors Supervisors will assess the situation and notify personnel of the severe weather conditions and actions to be taken. All loose materials and tools should be moved inside or secured in place. Following a storm, all personnel must be accounted for. If injuries have been sustained, they must be attended to accordingly.

If a tornado is sighted, and it appears that it will come close or pass over a location, seek shelter if possible. If a shelter is not available, move away from the tornado's path at a right angle. If there is not time to escape, lie flat in the nearest depression, such as a ditch or ravine.

In buildings without basements, take cover in the smallest room with sturdy walls, or under heavy furniture, or a tipped-over couch or chair in the center part of the building. The first floor is safer than higher floors. If there is time, open windows partly on the side away from the storm's approach, but stay away from windows due to debris and flying glass.

Mobile buildings, or buildings on blocks, are particularly vulnerable to overturning and destruction during strong winds, and should be abandoned in favor of a pre-selected shelter, or even a ditch in the open.

Parked cars are dangerous during a tornado or severe windstorm; however, as a last resort, if no ravine or ditch is nearby, they may provide some shelter from flying debris to those who lay on the floorboard inside the car.

In preparation for storm season, battery-operated radios should be obtained in case of a power loss, related safety rules and procedures should be reviewed, and training on identifying an approaching tornado, and the subsequent change of work plans to remain near a shelter during a severe storm threat should be conducted.

3. Floods

Carefully determine the area affected by the high water. If possible, do the following:

a. Move equipment and materials to higher ground.

b. Sandbag areas where water can be diverted.

c. Monitor exits to be certain they are not blocked by floodwater.

When driving a vehicle, do the following:

a. Be cautious of obstacles and low spots hidden by the water.

b. Beware of low spots where water currents may be high enough to sweep a person or even a vehicle off the road.

c. Be cautious of driving through water high enough to kill an engine and/or damage a vehicle.

d. If necessary, use vehicles with high ground clearance to ferry personnel through high water. Be sure the water is not too deep to drive through.

Beware of equipment that is submerged, especially when there is a potential for electrical shock.

Be cautious of snakes, animals, and insects driven from their natural habitat by high water.

Flash Floods

If a flash flood is expected to occur and time permits, supervisors should coordinate the following activities:

a. Shut down the operations.

b. Evacuate all non-essential people out of danger area.

c. Secure all loose material, equipment, etc.

d. Move mobile equipment to higher ground.

e. Evacuate remaining people out of the danger area

After a flash flood has hit the location, do the following:

a. Administer first aid to any injured people and arrange for medical assistance.

b. If a fire, explosion, equipment failure has occurred, follow appropriate procedures.

c. Survey and report damages.

4. Freezing Rain/Ice Storms

When driving in freezing rain or ice, do the following:

a. Minimize traveling until road conditions improve.

b. Be cautious of bridges and overpasses during icy conditions.

c. Watch for fallen power lines, tree branches, etc.

d. If it is necessary to cross a frozen bridge or overpass, reduce speed, approach straight on and drive straight across. Do not touch the brakes, turn the wheels, or accelerate while crossing.

When working in potentially icy conditions at a Jim Berry Contractors jobsite, do the following:

a. Use salt or sand on slippery surfaces.

b. Be aware of the increase potential for icy conditions on elevated walkways, steps, and ramps, etc. Use salt or sand on these surfaces to minimize the potential.

5. Other Natural Emergency Conditions

Think through what must be done in the event of other natural emergency conditions and be prepared. Discuss emergency procedures and arrange communications, first aid, transportation, and other details before an emergency occurs.

Emergency Action Plan

The emergency action plan addresses procedures to be followed by employees when there is an evacuation. It must specify who, if any, should remain to operate critical operations during an emergency evacuation. The plan should specify if no employees are to remain. The plan must address procedures to account for all employees after an evacuation.

The plan must contain contact information that will be provided to employees who need additional information pertaining to the plan or their respective duties.

The emergency action plan must state which method the company will use to notify employees of an emergency. The alarm system shall be distinctive and recognizable as a signal to evacuate the work area or perform actions designated under the emergency action plan. For those employers with 10 or fewer employees in a particular workplace, direct voice communication is an acceptable procedure for sounding the alarm provided that all employees can hear the alarm.

The employer must designate and train employees to assist in a safe and orderly evacuation of other employees.

The emergency action plan should be reviewed with an employee under the following circumstances:

1. When the plan is developed or the employee is assigned initially to a job
2. When the employee's responsibilities under the plan change
3. When the plan is changed

Accident/Incident Reporting and Investigation

All incidents, no matter how minor, must be reported to a supervisor immediately. Subcontractors must also comply with this requirement. "Immediately" is defined as within fifteen (15) minutes of the incident, or sooner if the situation dictates. When an incident occurs, it must be reported in a specified manner. The reporting sequence must be posted. The employer must verbally report required incidents to OSHA within 8 hours of their discovery. Incidents must also be reported to the Owner Client as soon as possible or within 24 hours of the incident.

Incidents that are required to be reported to OSHA are work related incidents resulting in the death of an employee or the hospitalization of three or more employees.

Owner Clients require all incidents to be reported including injuries, spills, property damage, fires, explosions, and vehicle damage.

Jim Berry Contractors implemented this program in order to establish a protocol for incident reporting and investigation. The Safety Coordinator will be responsible for investigation (or delegating the investigation of) all accidents. The goal of this program is to prevent future incidents by studying the information collected during investigations to determine a root cause and subsequent work practice or procedure changes necessary for safety. Additionally, the investigation will be used to prepare the reports that are required by federal and state regulation, and our insurance provider. These reports are critical in establishing company liability.

In order for the Accident/Incident Investigation Report to be effective, it must contain a detailed answer to the following questions:

1. What was the employee(s) doing?
2. Where was the employee when he/she was injured?
3. What happened -- in detail? Avoid vague responses or statements.
4. What caused the accident? This will be answered in greater detail when a Root-Cause Analysis is completed.
5. What can be done to prevent a similar accident?
6. Employees' name
7. Employees' Hourly and Weekly wage
8. Employees' address, phone number, spouse's name and number of dependents
9. Employees' Supervisor

10. List of witnesses, and their written statements. These witnesses sign and date these statements.

11. What was the condition of the equipment involved?

12. What was the proper response to the situation, and could this be improved upon?

13. Did the Job Safety Analysis list the situation that occurred as a potential hazard, and why didn't the method of protection from this hazard prevent the incident from occurring?

The information gathered in the Investigation Report will be utilized to develop a Root-Cause Analysis—the primary cause of an incident. Management may require the individuals involved in the incident to meet and discuss the incident. If so, the entire incident scenario will be discussed and recommendations made. The Safety Department will record all notes taken during the Root-Cause Analysis and make the final report available, with recommended actions and date of completion, to all affected employees.

Training

All personnel must be trained in their roles and responsibilities for incident response and investigation techniques. Training requirements relative to incident investigation and reporting should be identified. All training should be documented and kept on file.

Employees who could be first responders when an incident occurs should be trained and qualified in first aid techniques to control the degree of loss during the immediate post-incident phase.

Restricted (Light) Duty/Case Management

Restricted duty provides employees who have experienced a work-related illness or injury with work during the time that they are unable to complete all of their regular job duties. Jim Berry Contractors, based on the health care provider's input, will arrange restricted duty work to accommodate the needs of the company and the needs of the employee. While on restricted duty, Jim Berry Contractors, and the healthcare provider will monitor the employee's progress. At no time will the employee on restricted (light) duty exceed the physical limits established by the healthcare provider.

Proper authorization for restricted duty should be obtained in writing prior to an employee's starting any restricted duty work. All such medical correspondence will be maintained in the employee's file. Human Resources are responsible for sending to the employee a Bonafide Offer of Employment that corresponds with the work limitations established by the healthcare provider. ***Whenever possible, restricted duty should be recommended over absence from work, unless the healthcare provider feels that any work in any capacity is not medically advisable.***

Restricted Work: Purposes and Benefits

Employees are our most valued assets. Their safety and well-being are a major concern for Jim Berry Contractors. When our employees are injured or ill, it is our intent to assist them with a quick recovery and return them to meaningful employment as soon as possible.

To that end, a period of Restricted Duty work:

1. Minimizes the injury's impact on the employee and Jim Berry Contractors
2. Promotes rapid recovery from injuries/illness
3. Provides a safe and timely transition back to work

The employee and company benefit when Jim Berry Contractors can offer an injured employee meaningful temporary Restricted Duty:

The Employee:

1. Tends to recover more quickly;
2. Participates in some type of work activity as soon as he/she is medically able;
3. Experiences a smoother transition back to regular duty;
4. Feels improved self-esteem in spite of medical condition;
5. Maintains relationships with co-workers and management; and

6. Sees management's commitment to employee welfare.

The Employer:

1. Keeps a trained and experienced worker;

2. Reduces the costs associated with the loss of production and replacement of an employee;

3. Improves work ethic;

4. Promotes employee morale/security; and

5. Fosters better communications with employees.

Restricted Duty is recommended by Jim Berry Contractors when:

1. The employee's medical condition temporarily prevents the employee from performing his or her full regular duties, including full-time work; or

2. The Jim Berry Contractors physician:

    a. Believes the employee's condition is temporary, and will probably improve with an appropriate amount of time and/or treatment;

    b. Feels that the maximum medical improvement has not yet been attained

    c. Has provided instructions for specific restrictions in writing to the employer

General Information – Guidelines

Jim Berry Contractors will closely evaluate physician recommendations for Restricted Duty. The physician will re-evaluate all employees on Restricted Duty on a periodic basis to be established by the company and its Safety Department. Jim Berry Contractors management and the physician will continuously review the appropriateness of continuing Restricted Duty. The following are some general guidelines about Restricted Duty:

1. Restricted work assignments are temporary and are intended to facilitate a return to regular duty. Restricted duty assignments are not intended or permitted to become permanent.

2. Only the healthcare provider can recommend permanent limitations, since these may impact employment (This is not generally done by the healthcare provider unless maximum medical improvement has been reached.).

3. Extension of Restricted Duty beyond 30 days should be based upon discussions with the healthcare provider and upper Jim Berry Contractors management. (The advisability of extending the restrictions beyond 30 days may vary related to the medical condition/injury or manpower needs.)

4. Restricted Duty should be extended only when it is determined by the healthcare provider that the additional time would facilitate a return to full regular duties.

5. Restricted Duty extensions should not adversely affect the Department's operational goals or the objectives of the transitional work process.

6. Restricted Duty assignments must be offered to the employee as soon as he/she is released for Restricted Duty by the healthcare provider.

7. There is no set limit on the number of employees permitted to participate in Restricted Duty at any one time. However, multiple Restricted Duty assignments at any given time may impact company operations; consequently, limits on the number of employees, and the amount of time on Restricted Duty shall be at the sole discretion of Jim Berry Contractors.

8. The healthcare provider's recommendations will be taken into consideration when offering the number of hours and days on Restricted Duty.

9. The assignment can be less than 40 hours per week but cannot exceed 40 hours per week.

10. The employee will get paid at his full customary rate while on Restricted Duty.

Communication Responsibilities of Employees and Supervisors

Employees are required to either arrive for work on time, or to notify their supervisor before the start of their shift, so that he has time to replace or cover the absent or tardy employee.

When an employee does not show up for work, he must call his supervisor the first day that he fails to come to work and tell the supervisor the reason, explicitly noting if the reason is a work related injury or illness. He or she must contact Jim Berry Contractors before going to the healthcare provider for work-related injuries or illnesses. If an employee is absent and does not call by noon, the supervisor should attempt to contact the employee by phone. If the employee informs his Supervisor that his absence from work is due to a work-related injury, the Jim Berry Contractors Supervisor shall immediately contact the Safety Department to coordinate the medical attention for the injured employee.

Supervisors should communicate with employees who are on Restricted Duty status on a regular basis.

Supervisors and the safety department must document all information related to the employee's injury or illness.

The Supervisor will attend a monthly meeting with Safety and Jim Berry Contractors management to discuss the Restricted Duty cases and to develop pro-active plans to return the employee to regular duty. The injured employee should attend these meetings and give thoughts about his ability to return to work, date of next doctor's appointment, and the need for modification of duties to support progress toward return to full duties.

Those employees who are not working due to a work-related injury must be contacted by their immediate supervisor weekly. These contacts must be documented. Supervisors will review the employee's condition with the employee and verify that the employee's needs are being met, and discuss plans to return to work (restricted or regular duty). Furthermore, the Supervisor will secure the employee's ideas on recovery and return-to-work opportunities.

Supervisors should review Restricted Duty assignments with the employee weekly to:

1. Review appropriateness of the work assignment

2. Reinforce safe work behaviors

3. Request revisions in the Restricted Duty from the healthcare provider if it seems relevant

4. Provide appropriate communications with employee's supervisor when the employee is working in a different Jim Berry Contractors work area

Restricted Duty Assignments

Supervisors and Safety should contact Jim Berry Contractors management as soon as they are aware that a worker is to go on Restricted Duty.

Employees that are on Restricted Duty are to be assigned to the same general work shift, and to the same workweek that they were assigned to prior to their injury. If Restricted Duty is not available in the same work area, management will attempt to provide an alternative.

No overtime is allowed for Restricted Duty participants.

The assignments must be designed to provide meaningful tasks to the employee, assist with the employee's recovery, enhance productivity and reduce cost.

Restricted Duty is not	Restricted Duty is
Punitive	Productive and necessary
Permanent	Temporary
A promotion	Supervised
A "Job"	Rotational/variable tasks

Restricted Duty Offer/Refusal of Restricted Duty Assignment

After the employee is seen by the healthcare provider and is give the appropriate Restricted (Light) Duty paperwork, he must provide a copy to both the safety department, and his immediate Supervisor.

While the company has the option of limiting the type and amount of Restricted Duty based on feedback from the healthcare provider and according to operational needs, a company request for an employee to report to work in a specific capacity (e.g., in a "restricted duty capacity" or a "normal duty capacity") is a fundamental job requirement. As such, employees are required to comply with the request to report for work in order to maintain his or her employment. Failure to report on time, to work in the requested capacity, or to perform the designated duties could result in the termination of employment.

Job Safety Analysis (JSA)

The purpose of the Job Safety Analysis (JSA) is to prevent accidents by identifying existing and potential hazards, and taking actions to eliminate, or reduce them to an acceptable level before a job begins.

The goal is to:

1. Identify the potential hazards
2. Identify appropriate methods to reduce or eliminate the hazards
3. Fulfill requirements of the Customer
4. PPE Hazard Assessment

JSAs must be completed before each job (routine or beyond routine) is begun. Furthermore, if the major work scope changes, another JSA will be completed.

Every employee (Jim Berry Contractors or client) will participate in the completion of the JSA. When the client does not provide a JSA form to complete, Jim Berry Contractors will make theirs available and request that the client representative(s) participate.

Work permits may accompany the JSA. Examples of these include Hot Work Permits, Confined Space Entry, and Lockout/Tagout.

Who should fill out a JSA?

1. Job Foreman should lead JSA team
2. Truck Pusher
3. Possible team members
4. Employees experienced in performance of the job
5. Technical experts (mechanics, engineers, etc.)
6. Customer representatives
7. Personnel with no experience in performing the job (often bring unique insight)

Blank JSA forms are available in the office. Jim Berry Contractors employees will be trained on JSA procedures during New Hire Orientation.

Environmental Responsibilities and Training

Jim Berry Contractors is dedicated to the protection of the environment. Jim Berry Contractors is committed to fulfilling the moral obligation we all have to protect the environment. Furthermore, Jim Berry Contractors will meet or exceed all regulatory and client requirements. Damage to the environment is not a short term, but rather a long term problem.

Employees will be taught the environmental regulations and pollution prevention practices that are applicable to their operating responsibilities. Employees are expected to act on their knowledge by performing their job in a way that complies with regulatory requirements and company policies, standards, guidelines, and procedures.

- Pollution control equipment must be maintained in proper working order.
- Seals on packing glands, flanges and other connections must be maintained in good condition to decrease the amount of gases that escape from worn seals.
- Consider nuisance impacts such as odors, smoke and dust and improve as appropriate.
- Jim Berry Contractors will comply with all client air emission requirements.
- All chemicals will be stored and disposed of properly. All chemical containers will be properly labeled.
- Drums or storage areas will be protected from rain and run off.
- Drip pans will be used to catch any leaks. Leaks will be repaired. Drip pans will be emptied until leaks are repaired.
- Any and all protected plant and animal wildlife will be protected from industrial or other development activities. It is illegal to harm, harass, feed, pursue, wound, capture or possess an endangered species in any way. Jim Berry Contractors will refer to these protection parameters as provided by clients.
- Plants, animals and artifacts, including but not limited to arrowheads, rocks and fossils, must not be removed from leases.
- Do not allow fuel/oils to leak from vehicles. If this does occur, clean up immediately. If a reportable amount per client requirements, report appropriately.
- All trash and liter will be collected and disposed of properly. Do not let trash become free and blow around.
- Pesticides and herbicides will be applied per manufacturer requirements. These chemicals will not be applied during high wind or rain events. Dispose of pesticide and herbicide containers per manufacturer requirements.

- Do not damage retainer walls around tank batteries. If this is necessary, the wall must be rebuilt to original condition before the task is considered complete.

- All drainage and sump systems must be regularly inspected.

- Perform routine visual inspections of all production equipment for leakage or evidence of corrosion, vibration, excessive wear or other conditions such as erosion that could lead to the development of a leak or release. Include wellheads, flow lines and production and storage vessels in inspections.

- Jim Berry Contractors will follow all client SPCC (Spill Prevention and Countermeasure) Plans. The Jim Berry Contractors Supervisor will ask client representatives about any special procedures needed for these plans.

- Jim Berry Contractors will assist in client spill investigations and reporting to the best of their ability.

- The first person to become aware of a spill will try to stop the spill if can be done so safely. Jim Berry Contractors will approach any spill clean up with the proper training, proper containment equipment and applicable personal protective equipment.

- Jim Berry Contractors employees must be aware of NORM-contaminated wastes (Naturally Occurring Radioactive Materials). Because Jim Berry Contractors does not own any process that produces this type of waste, Jim Berry Contractors must rely on client information about possible exposures.

- Jim Berry Contractors employees will never remove contaminated or potentially contaminated products or waste from any clients' property. Jim Berry Contractors will assist the client in contacting those companies who are licensed and trained for contaminated waste removal.

Jim Berry Contractors will follow all Wetlands requirements as found within the Clean Water Act. Jim Berry Contractors clients must inform Jim Berry Contractors management and employees of these types of environmental considerations.

Short Term/Inexperienced Worker Program

Jim Berry Contractors will attempt to hire experienced employees for all positions but will employ both short term and inexperienced workers. Short term and inexperienced workers may have minimal oil field work experience, and their minimal experience makes them a higher safety risk. Because these employees are a higher risk, the following procedures have been developed to ensure that short term and inexperienced workers do not suffer an injury, or injure someone else.

Jim Berry Contractors will never place an employee in a situation where he or she is not trained and equipped to work proficiently and safely.

Jim Berry Contractors defines a "short term" worker as:

> An employee that is hired for a short duration or a temporary job and will discontinue work after the job is completed. The worker may or may not have sufficient oil field experience. (6 months or more)

Jim Berry Contractors defines an "inexperienced worker" as:

> An employee with less than 6 months oil field experience. The highest risk employee would be both inexperienced and short term.

Requirements for Jim Berry Contractors Short Term/Inexperienced Workers

1. At the New Hire Training session, the person conducting the New Hire Orientation will ascertain anticipated work duration and experience.

2. The new employee will be given a sticker to place on his hard hat to distinguish either short term and/or inexperienced.

3. Inexperienced /short term workers will be assigned a mentor (commonly the Supervisor but may also be the Truckpusher)

4. The Mentor is responsible for short term/inexperienced worker job assignments and on-the-job training/direction.

5. The Mentor, based on client requirements, notifies the client that a short term/inexperienced worker are on site.

6. All JSAs conducted on the jobsite will include mention of short term and inexperienced workers and the additional precautions that will be taken. Topics for the JSA should include experience level of the crewmembers, the "mentoring process", and ways to minimize health, safety, and environmental exposure with inexperienced workers in the crew. While some workers do not like this additional attention, all persons must "crawl before they walk".

7. No work may be initiated by the short term and/or inexperienced worker unless the Mentor has given exact job completion instructions and both the employee and the Mentor are satisfied that work will be done safely and proficiently.

8. Short term/inexperienced workers are encouraged to ask questions about his work and to make suggestions. As with all Jim Berry Contractors safety initiatives, the "newest guy on the job" can shut the job down for safety concerns or questions.

No job may have more than 25% short term or inexperienced workers.

All Short Term/Inexperienced Workers will attend all client required training before any work is done on a client facility. The Mentor is responsible for asking the client representative for this training.

Drug, Alcohol, and Weapons (Substance Abuse Program)

Purpose of the Policy

Jim Berry Contractors has established a drug, alcohol, and contraband policy for the following reasons:

1. To assist in providing a safe and healthy working environment for our personnel.

2. To protect our property and the property of our clients,

3. To cooperate with our clients in their efforts to provide safe and efficient operations, and

4. To project a positive image within our community.

Policy Statement

The use, possession, concealment, transportation, promotion, distribution, or sale of the following items or substances by any Jim Berry Contractors personnel or by any personnel of a Jim Berry Contractors subcontractor is prohibited on all company premises:

1. Illegal drugs, controlled substances (including trace amounts), look-alike drugs, designer drugs or any other substance which may affect the human body like a narcotic, depressant, stimulant, hallucinogen or cannabinoid.

2. Unauthorized intoxicating beverages.

3. Firearms, weapons, explosives, and ammunition.

4. Unauthorized items: Stolen property, drug paraphernalia, and contraband.

5. Unauthorized prescription drugs.

Working under the influence of any drug is strictly prohibited. Even trace amounts of a drug in an employee's circulatory system are grounds for immediate termination. Remember, what you do at home can and will effect what you do at work.

"Company premises" is defined as any location at which work is performed by Jim Berry Contractors, or one which is assigned to Jim Berry Contractors for its use by a client or another contractor, including parking lots and storage areas. Automobiles, trucks and any other vehicle or piece of equipment, whether company-owned or leased, that will be operated in any capacity at a Jim Berry Contractors location (as defined in this paragraph) is included in this definition.

No prescription drugs shall be brought on company premises by any person other than the person for whom the drug is prescribed by a licensed medical practitioner, and shall be used only in the manner, combination and quantity prescribed. Any employee who is using prescription drugs under a doctor's order must notify his supervisor of the identity and dosage of such prescription drugs prior to beginning work. The employee shall also authorize the company to contact his treating physician to determine if the prescription drug or medication produces side effects, which may be hazardous to the employee's work activity. Jim Berry Contractors reserves the right to consult with an independent physician to determine the effects of a prescription drug or medication on an employee's ability to work safely and productively. If an employee fails to inform his supervisor that he or she is taking a prescription medication, disciplinary action will be taken. These policies will be implemented in a manner that will comply with all applicable federal and state laws.

Safety of Workforce--Searches, Inspections, and Drug Testing

In order to ensure the safety of the workplace and the workforce, each employee, as a condition of continued employment may be required upon request of company supervisory personnel to:

1. Submit to a search of any vehicle brought onto or parked on company premises or on any premises on which the company employees are performing work.

2. Submit to a search of any pocket, package, purse, briefcase, tool box, lunch box, clothing, container or materials brought onto company premises or on premises where the company employees are performing work.

3. Submit to searches and inspections of desks, file cabinets, or work areas.

Each employee, as a condition of employment, may be required to submit to blood, urine or other medically approved drug testing procedures to ensure a drug and alcohol free work environment. The drug and alcohol testing may be utilized in, but is not limited to, the following circumstances:

1. Pre-Employment
2. Post-Accident
3. Random testing
4. Reasonable Suspicion
5. Return-to-Duty
6. Follow-up

The results of physical examinations and medical testing are confidential and will only be shared with the employee, and those managers who will determine what subsequent action must be taken, if any.

Effective Date

The provisions set forth in this policy will be implemented and effective immediately. Each person will be given an opportunity to read the related polices and will sign an acknowledgment that he/she understands the established requirements. Copies will be made available to all employees.

Disciplinary Action

An employee who refuses to submit to a search or inspection, a drug screen, or other approved medical testing procedure will be subject to disciplinary action up to and including discharge. Furthermore, if a detectable quantity of any illegal drug, controlled substance, non-prescription medication, or other substance that has a similar effect on the human body is discovered, disciplinary action, up to and including discharge, will be taken. Compliance with these policies and programs is a condition of employment. The proper law enforcement authorities will be notified whenever necessary or applicable.

Aerial Lifts: Vehicle-Mounted Elevating and Rotating Work Platforms

Extendable and articulating boom work platforms, and vehicle mounted elevating and rotating aerial devices may be used in daily operations at Jim Berry Contractors, and may be utilized in the future. Mechanical equipment, particularly load and personnel bearing equipment, must be inspected regularly to insure the health and safety of employees. The following safe work practice guidelines and inspection criteria have been established to minimize the risks associated with the operation of this type of equipment.

Aerial lifts acquired for use on or after January 22, 1973 shall be designed and constructed in conformance with the applicable requirements of the American National Standards for "Vehicle Mounted Elevating and Rotating Work Platforms," ANSI A92.2-1969, including appendix. Aerial lifts acquired before January 22, 1973 which do not meet the requirements of ANSI A92.2-1969, may not be used after January 1, 1976, unless they shall have been modified so as to conform with the applicable design and construction requirements of ANSI A92.2-1969.

General Safe Work Guidelines

- Only authorized persons shall operate an aerial lift.
- Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.
- Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted.
- Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
- An approved fall restraint system shall be attached to the boom or basket when working from an aerial lift and is not permitted to be attached to adjacent poles or structures.
- Boom and basket load limits specified by the manufacturer shall not be exceeded.
- The brakes shall be set and outriggers, when used, shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline.
- An aerial lift truck may not be moved when the boom is elevated in a working position with men in the basket, except for equipment which is specifically designed for this type of operation.
- Articulating boom and extensible boom platforms, primarily designed as personnel carriers, shall have both platform upper and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function.

Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.

- The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.

- Use outrigger pads when necessary to provide firm footing.

Operation

Before Operation

Before being authorized to use the work platform, the operator shall:

1. Be instructed by a qualified person in the intended purpose and function of each of the controls

2. Understand by reading or by having a qualified person explain all decals, warnings, and instructions displayed on the work platform.

Prior to use on each work shift, the work platform shall be inspected for defects that would affect its safe operation and use. The inspection shall consist of the following:

1. Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition. Tests shall be made at the beginning of each shift during which the equipment is to be used to determine that the brakes and operating systems are in proper working condition.

2. Visual inspection for cracked welds or other structural defects, hydraulic leaks, damaged control cables, loose wire connection, and tire damage.

3. Operating controls and associated mechanisms for conditions interfering with proper operation.

4. Visual and audible safety devices for malfunction.

5. Fiberglass and other insulating components for visible damage or contamination. (if applicable)

6. Missing or illegible operational markings.

7. Electrical apparatus for malfunction, signs or excessive deterioration, dirt, and moisture accumulation.

Any suspect items shall be carefully examined and a determination made by a qualified person as to whether they constitute a safety hazard. All unsafe items shall be replaced or repaired before use.

Before the work platform is used and during use, the job site shall be checked for hazards such as ditches, drop-offs or holes, bumps and floor obstructions, debris, overhead obstructions and high-voltage conductors, and other possible hazardous conditions.

During Operation

The work platform shall be used only in accordance with the manufacturer's/owner's operating instructions and safety rules.

Before each elevation of the work platform, the operator shall:

1. Check for overhead obstructions and high-voltage conductors. A minimum distance from energized high-voltage conductors shall be maintained at all times in accordance with applicable regulations and standards.

2. For lines rated 50 kV. or below, minimum clearance between the lines and any part of the crane or load shall be 10 feet.

3. Make sure the work platform is elevated only on a firm and level surface.

4. Make sure the load and its distribution on the platform and/or load lifting devices are in accordance with the manufacturer's rated capacity. The manufacturer's rated work load shall never be exceeded.

5. Any loading which includes a horizontal load shall be avoided unless the mobile unit is designed for that application.

6. Make sure outriggers or stabilizers, if required, are used in accordance with manufacturer's instructions.

7. Make sure platform guardrails are properly installed and gates or openings are closed.

8. Check to see that all occupants' safety belts are on and properly attached.

Before driving with an elevated boom or platform, the operator shall:

1. Look in the direction of, and keep a clear view of, the path of travel, and make sure that the path is firm and level.

2. Maintain a safe distance from obstacles, debris, drop-offs, holes, depressions, ramps, and other hazards to safe elevated travel.

3. Maintain a safe distance from overhead obstacles.

4. The vehicle has a reverse signal alarm audible above the surrounding noise level or the vehicle is backed up only when an observer signals that it is safe to do so.

Under all travel condition the operator shall limit travel speed according to conditions of ground surface, congestion, slope, location of personnel, and other factors causing hazard of collision or injury to personnel. ***Stunt driving and horseplay shall not be permitted.***

Personnel shall maintain a firm footing on the platform while working thereon. Safety harness/lanyard devices fixed to attachment points provided and approved by the manufacturer shall be used by all occupants. Use of railings, planks, ladders, or any other device on the work platform shall be prohibited.

The operator shall immediately report to his supervisor any defects or malfunctions which become evident during operation. Any defects or malfunctions that affect the safety of operations shall be repaired prior to continued use of the work platform.

Altering, modifying, or disabling safety devices or interlocks is prohibited.

Care shall be taken to prevent ropes, electric cords, hoses, and the like from becoming entangled in the work platform when it is being elevated, lowered, or moved.

Work platform rated capacities shall not be exceeded when live loads are transferred to the platform at elevated heights.

The operator shall ensure that the area surrounding the work platform is clear of personnel and equipment before lowering the platform.

Maintain communications between the driver and the operator.

The vehicle parking brake(s) shall be set at all times that the boom is elevated except when the aerial device is being used for mobile operation.

Additional Requirements

Fuel Tanks. Fuel tanks shall not be filled while the engine is running. Caution shall be used while filling tanks to avoid spilling fuel.

Battery Charging. Batteries shall not be charged except in an open, well-ventilated area free of flame, smoking, spark, and fire.

Modification or Alteration. There shall be no modification or alteration to work platforms without the modifications being approved and certified in writing by the manufacturer or other equivalent entity, such as a nationally recognized testing laboratory.

Inspection

Prior to operation on each work shift, the work platform shall be inspected. Any discrepancy found shall be documented using the Aerial Lift Inspection Discrepancy Form.

Inspection and Test Records

The operator will be responsible for daily inspection prior to initial use each day. Records of these inspections need not be made. However, where a safety hazard is found, it shall be reported in writing to a person responsible for the corrective action.

Maintenance

Maintenance and frequency of maintenance shall be determined by the user based on the recommendation of the manufacturer.

Maintenance referred to as critical by the manufacturer's manual shall be strictly adhered to.

Welding repairs or welded components, designated as critical in the manufacturer's recommendations must be performed by a certified and authorized repair technician. Should the original manufacturer no longer exist an equivalent entity may determine the required procedure.

Benzene Exposure (Awareness)

Jim Berry Contractors employees may be exposed to various chemicals or products in the workplace. All Jim Berry Contractors employees shall be aware of the hazards posed by chemicals and shall be protected from any harm potentially caused by these hazards. Material Safety Data Sheets will be referenced for hazards and guidelines adhered to.

Benzene is a clear, colorless, flammable liquid. Benzene is considered a carcinogen which is cancer-causing. It has a strong, sweet odor. Hazards associated with benzene include respiratory and skin and may cause eye irritation at certain concentrations. 1 ppm is the permissible exposure level (8 hours per OSHA). ACGIH and NIOSH standards are different and Jim Berry Contractors clients determine which standard applies.

Benzene is extremely flammable. Its flash point (the temperature where an ignition source can ignite benzene vapors) is -11° C. Its flammable range (concentration of vapors in the air) is from 1.2 to 7.8 percent. The vapor is heavier than air, so it can spread long distances and ignite far from the source and flashback. The liquid is lighter than water and it floats on top of water if mixed. Mixing or contact with strong oxidizers (i.e. peroxides, chlorine, ozone, and nitric acid) can result in combustion and, potentially, an explosion. Consequently, Fire Extinguisher must be readily available to all employees within the Regulated Area.

Note: Employees need to be aware that there may be no safe level of exposure to a carcinogen, so all contact should be reduced to the lowest possible level. The above exposure levels are for air levels only. When skin contact also occurs, you may be overexposed, even though air levels are less than the limits listed above. All chemical contact will be kept to a minimum, PPE shall be utilized and the MSDS will be referenced for all hazards.

Potential locations of Benzene exposure:

1. Petroleum refining sites

2. Tank Gauging (tanks at producing, pipeline & refining operations)

3. Field maintenance

Jim Berry Contractors does not produce any product that contains benzene but may work around the following products or operations:

Gasoline	Crude Oils	Paints
Thinners	Degreasers	Cleaners
Tank bottoms	Commercial Aviation Fuels	Prover barrels
Sumps	Strainers and filters	Pig traps
Pipeline repairs		

Benzene Monitoring and Respiratory Protection

If employee exposure is at or above the permissible exposure limit (PEL), the engineering controls and work practices must be implemented to reduce and maintain employee exposure to benzene below the PEL. If the engineering and work practices are not sufficient to restrict employee exposure, then respiratory protection must be used. If an employee is to work in the following levels, the subscribed respiratory protection will be used:

- At concentrations between 1 ppm and 10 ppm, a half-mask, air-purifying respiratory is required.

- At concentrations between 10 ppm and 50 ppm a full-face, air-purifying respirator is required.

- At concentrations of 50 ppm or more, atmosphere-supplying respiratory protection is required. Benzene is considered Immediately Dangerous to Life or Health (IDLH) at concentrations of 500 ppm or higher.

Work Practices implemented by this program are to include:

- Mandatory participation in Training
- Good hygiene practices—no eating, drinking, or tobacco use allowed inside of the Regulated Area. Employees are also expected to wash their face and hands before eating, drinking, using tobacco, and/or leaving the job site at the end of their shift.
- Maintaining engineering controls.
- Storing benzene properly.
- The strict enforcement of the Regulated Area rules.
- Using the appropriate PPE.
- Quick and efficient confinement and clean up of spills.
- NO SMOKING in or around Regulated Areas or in the proximity of Benzene.

Engineering Controls used on job sites can include:

- Ventilation hoods
- Enclosures around work processes (fume hoods, glove boxes)
- Use of automatic systems to pump benzene from storage containers to process containers

Jim Berry Contractors relies on its client to inform Jim Berry Contractors of the potential for benzene exposure. Jim Berry Contractors reserves the right to test for benzene when working around benzene-containing products.

Employer should be aware of Owners contingency plan provisions. Employees must be informed where benzene is used in host facility and aware of additional plant safety rules.

Benzene Regulated Areas

Regulated areas are defined as any area that contains benzene vapors at or above 1 ppm. Benzene Regulated Areas will be identified by placement of Benzene Danger signs at all entrances. Jim Berry Contractors employees will not enter these areas until they are properly trained, fit tested for, and equipped with the appropriate PPE—respirators (Respiratory Protection p. 1), boots, gloves, sleeves, eye protection, and aprons, etc. Work practices and Engineering controls covered on page 2 of this program.

Training

Training will include definition of benzene, where benzene is found, engineering methods to reduce benzene levels, personal protective equipment, signs and symptoms of benzene exposure, benzene hazards to include acute and chronic effects, fire hazards, monitoring, physical properties, workplace limits, exposure reporting, and safe work practices.

Employees must report any significant exposure to benzene (0.1 or more by volume of benzene present) to the Jim Berry Contractors Supervisor immediately.

In the event of a sudden release of benzene-containing material, all responders to the scene are to be equipped with respiratory protection and complete skin covering, until the benzene level is determined to be at a safe level.

Benzene Exposure Symptoms

- Dizziness
- Giddy, anxious feeling
- Nausea
- Shortness of breath
- Respiratory, skin, and eye irritation
- Severe headaches
- Unsteadiness

Bloodborne Pathogens

Purpose

The purpose of this program is to prevent Jim Berry Contractors employees from being exposed to bloodborne pathogens, to minimize the risk of exposure, where there may be a potential for exposure to a bloodborne pathogen through an Exposure Control Program (ECP), and to assure compliance with 29 CFR 1910.1030.

Responsibilities

It is management's responsibility to implement and enforce this program. It is the responsibility of all employees to comply with this program and encourage their peers to do the same. Compliance with this program is mandatory, and employees are obligated to report all violations.

Employee Involvement

Employees are encouraged to offer suggestions for the improvement of this and any safety program; suggestions should be submitted to the Jim Berry Contractors corporate office, either by the employee or his/her supervisor.

Jim Berry Contractors welcomes all suggestions because it is committed to creating a safe workplace for its employees. A safe and effective bloodborne pathogen exposure prevention and control program is an important component of the overall safety plan.

Covered Employees

If an employee is trained in first aid and designated by Jim Berry Contractors as responsible for rendering medical assistance as part of his/her job duties, that employee may have occupational exposure to bloodborne pathogens and is therefore covered by the Bloodborne Pathogen Standard, 29 CFR 1910.1030.

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

Hepatitis B Vaccine Exemption

Where first aid providers have completely unrelated job duties and have little actual likelihood of occupational exposure, such as with Jim Berry Contractors employees, OSHA has issued an official exemption from the pre-exposure hepatitis B vaccination requirement of the standard. All other requirements, including the written exposure control plan (ECP) of the bloodborne pathogens standard still apply to workers exempted from the HBV vaccination requirements.

First Aid Training

First aid trainers are responsible to make sure that employees are trained in bloodborne pathogen hazards and controls at the time the first aid training is provided. Training should include:

- Symptoms of bloodborne diseases
- Modes of transmission of bloodborne pathogens
- Recognition of tasks that may involve exposure
- Use and limitations of methods to reduce exposure, for example, use of plastic gloves, and other personal protective equipment (PPE)
- Types, use, location, removal, handling, decontamination, and disposal of PPE
- The basis of selection of PPE
- Hepatitis B vaccination efficacy, safety, method of administration, and benefits

Exposure Control Plan (ECP)

This document serves as the written procedures Bloodborne Pathogens Exposure Control Plan (ECP) for Jim Berry Contractors. These guidelines provide policy and safe practices to prevent the spread of disease resulting from handling blood or other potentially infectious materials (OPIM) during the course of work.

This ECP has been developed in accordance with the OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030. This plan is made available to all employees in the Employee Handbook in a reasonable time, place and manner. Each employee is given this handbook at time of hire and again as revisions are made. The purpose of this ECP includes:

- Universal Precautions procedures will be observed at all times: All body fluids will be considered potentially infectious.

- Eliminating or minimizing occupational exposure of employees to blood or certain other body fluids

- Complying with OSHA's Bloodborne Pathogens Standard, 29 CFR 1910.1030

- Assuring adequate protection for those employees who are designated first aid responders

1. Exposure Determination

Designated first aid responders may incur occupational exposure to blood or OPIM. The exposure determination is made without regard to the use of personal protective equipment (i.e., employees are considered to be exposed even if they wear personal protective equipment).

2. Work Practice Controls

Work practice controls shall be used to eliminate or minimize exposure to employees, including:

- The appropriate PPE shall be made available to all employees at no cost to the employees. Jim Berry Contractors will insure that the appropriate PPE in the appropriate sizes is distributed. PPE will be cleaned, laundered and properly disposed of as needed. PPE shall be used unless employees temporarily declined to use under rare circumstances. Jim Berry Contractors will replace or repair PPE that is damaged to maintain its effectiveness.

- All equipment or environmental surfaces shall be cleaned and decontaminated after contact with blood or other infectious materials

- Removing contaminated PPE as soon as possible

- Cleaning and disinfecting contaminated equipment and work surfaces with a solution of 1/4 cup chlorine bleach per gallon of water

- Thorough hand washing with soap and water immediately after providing care or provision of antiseptic towelettes or hand cleanser where hand washing facilities are not available

- Use of leak-proof, labeled containers for contaminated disposable waste or laundry

- Barricading exposed areas

3. Hand washing Facilities

Hand washing facilities are normally available to employees who have exposure to blood or OPIM.

When circumstances require hand washing and facilities are not available, either an antiseptic cleanser and paper towels or antiseptic towelettes shall be provided. Employees must then wash their hands with soap and water as soon as possible.

4. Handling Regulated Wastes

When handling regulated wastes, the procedures detailed below shall be followed:

- Placed in containers which are closeable, constructed to contain all contents, and prevent fluid leaks during handling, storage, transportation, or shipping

- Labeled or color coded and closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

- Identified with the wording, "Potential Bloodborne Pathogen"

Note: Disposal of all regulated waste is in accordance with applicable Unites States, state and local regulations.

5. Handling Contaminated Laundry

Laundry contaminated with blood or OPIM shall be handled as little as possible. Such laundry shall be placed in appropriately marked (biohazard labeled, or color coded red bag) bags at the location where it was used. Such laundry shall not be sorted or rinsed in the area of use.

Hepatitis B Vaccination Program

1. Hepatitis B vaccination

Jim Berry Contractors offers: the Hepatitis B vaccine and vaccination series to all employees who have had an occupational exposure to bloodborne pathogens; and post exposure follow-up to employees who have had an exposure incident.

All medical evaluations and procedures including the Hepatitis B vaccine and vaccination series and post exposure follow up, and prophylaxis shall be:

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

2. Post-Exposure Evaluation and Follow-Up

All exposure incidents shall be reported, investigated, and documented via the Jim Berry Contractors accident investigation process. When the employee is exposed to blood or OPIM, the incident shall be reported to the Jim Berry Contractors Safety and Environmental Manager.
When an employee is exposed, he or she will receive a confidential medical evaluation and follow-up, including at least the following elements:

- Documentation of the route of exposure, and the circumstances under which the exposure-occurred
- Identification and documentation of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law

- The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity.

- When the source individual's consent is not required by law, the source individual's blood, if available, will be tested and the results documented

- When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated

- Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual

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

- The exposed employee's blood shall be collected as soon as possible and tested after consent is obtained

- The employee shall be offered the option of having their blood collected for testing of the employee's HIV/HBV serological status. The blood sample shall be preserved for up to 90 days to allow the employee to decide if the blood should be tested for HIV serological status

All employees who incur an exposure incident shall be offered post-exposure evaluation and follow-up according to the OSHA standard.

The healthcare professional responsible for the employee's Hepatitis B vaccination shall be provided with the following:

- A copy of 29 CFR 1910.1030

- A written description of the exposed employee's duties as they relate to the exposure incident

- Written documentation of the route of exposure and circumstances under which exposure occurred

- Results of the source individuals blood testing, if available

- All medical records relevant to the appropriate treatment of the employee including vaccination status

Jim Berry Contractors shall obtain and provide to the employee a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation. The healthcare professional's written opinion for HBV vaccination shall be limited to whether HBV vaccination shall be indicated for an employee, and if the employee has received such vaccination.

The healthcare professional's written opinion for post-exposure follow-up shall be limited to the following information:

- A statement that the employee has been informed of the results of the evaluation
- A statement that the employee has been told about any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment

Note: All other findings or diagnosis shall remain confidential and shall not be included in the written report.

Recordkeeping

1. Records Maintenance

First aid, and other bloodborne training records shall be maintained for three years from the date of training. The following information shall be documented:

- The dates of the training sessions
- An outline describing the material presented
- The names and qualifications of persons conducting the training
- The names and job titles of all persons attending the training sessions

Medical records shall be maintained in accordance with OSHA Standard 29 CFR 1910.1020. These records shall be kept confidential, and must be maintained for at least the duration of employment plus 30 years. The records shall include the following:

- Employee’s name and social security number
- A copy of the employee's HBV vaccination status, including the dates of vaccination
- A copy of all results of examinations, medical testing, and follow-up procedures
- A copy of the information provided to the healthcare professional, including a description of the employee's duties as they relate to the exposure incident, and documentation of the routes of exposure and circumstances of the exposure

2. Availability

All employee records shall be made available to the employee in accordance with 29 CFR 1910.1020 and to the Assistant Secretary of Labor for the Occupational Safety and Health Administration and/or the Director of the National Institute for Occupational Safety and Health upon request.

3. Transfer of Records

Medical records must have written consent of employee before being released. Jim Berry Contractors will comply with the requirements involving transfer of records set forth in 29 CFR 1910.1020(h). If bloodborne pathogen exposure records cannot be maintained for the prescribed period, the Director of the NIOSH shall be contacted for final disposition.

Labels and Signs

All containers of regulated waste used for storage; transport or shipping of potentially infectious materials shall be clearly marked with a warning label. This warning label shall be fluorescent orange or orange-red with lettering or symbols in a contrasting color.

Wherever applicable, red bags or red containers may be used instead of the warning label.

The Safety Director, or his designee is responsible for ensuring that all containers are properly labeled at all times.

Individual containers of infectious materials that are placed in labeled containers for storage, transport or shipping need not be individually labeled.

Training will be provided to employees as follows:

- At the time of initial assignment to tasks where occupational exposure may take place.
- Within 90 days after the effective date of the standard; and
- At least annually thereafter.

Confined Space

A Permit-Required Confined Space is any tank, vessel, or similar enclosed area that:

1. Contains an atmospheric or physical hazard, or has the potential to contain such a hazard,
2. Has a restricted means of entry and egress, and
3. Is not designed for continuous human occupancy.

A Permit-Confined space is further defined as any tank, vessel, silo, vault, pit or open-topped space more than 4 feet deep, except open-topped spaces whose width is greater that the depth.

Although the OSHA allows confined spaces with no potential for a recognized hazard to be considered Non-Permit Required Confined Spaces, Jim Berry Contractors shall consider all confined spaces as Permit-Required Confined Spaces.

Examples of Permit-Required Confined Spaces found at Jim Berry Contractors include:

- Product Storage Tanks;
- Utility Vaults;
- Sumps;
- Septic Tanks;
- Cargo Holds on Tank Trucks, and
- Storm Water Collection Tank.

Each facility will conduct an inventory of confined spaces and attach the list as an appendix to this document.

Warning signs must be posted at all point(s) of entry to identify confined spaces. Signs shall state: **CONFINED SPACE – DANGER – DO NOT ENTER.**

The operating supervisors are responsible for implementing and enforcing the confined space entry program.

In order to perform work that involves entry into a Permit-Required Confined Space, the following requirements must be met:

- The Operations Manager must specifically approve the entry.
- All hazards and potential hazards must be identified and appropriate precautions taken.

- A Confined Space Entry Permit must be completely filled out and the appropriate signatures obtained.

- All personnel must have completed training appropriate to their duties; and

- An effective Rescue Plan must be developed.

Entry is defined as any part of the body breaking the plane of an opening into the Permit-Required Confined Space.

Preparation of Confined Space

Before entering the interior of any vessel or tank, it shall be drained, washed, purged, and flushed to the extent practical.

Blind all necessary flanges or disconnect all lines that may carry harmful agents to ensure that no vapors or fluids can leak into the confined space area. Lockout and tag all pumps, motors, or any other energy source to ensure complete isolation to the confined space. All established electrical lockout/tagout and blinding procedures for equipment isolation shall be followed.

The use of purging and mechanical ventilation should be considered prior to entering confined spaces unless conditions prevent its use. Ventilation equipment must be hazard classed for the area it will be used in; for example, Class I Division II explosion proof fans may be required if ventilation is used.

Jim Berry Contractors employees may not enter a confined space where exposed energized parts exist unless illumination is provided to create a safe working environment. Protective shields, barriers, or insulated materials shall be used to prevent contact with equipment when exposed energized parts are present.

Special considerations must be given to tanks that are being purged with an inert gas. "Normal" combustible gas indicators will not accurately measure the combustible gas in a tank being purged. Special instruments, such as a MSA tankscope, must be used to accurately monitor combustible gas in an "inert" atmosphere.

Testing Confined Space Atmospheres

Confined space atmospheres must be tested before entry is allowed. The atmosphere must be tested for oxygen content, flammability (LEL), any other suspected toxic contaminants. The tests must be conducted in the order listed.

Where entry is required to test the atmosphere, the individual conducting the initial test shall wear a SCBA (self-contained breathing apparatus) or airline positive pressure respirator with egress bottle.

All equipment used for atmospheric testing shall be calibrated and operationally checked prior to use according to manufacturer's specifications. The atmospheric tests and operational checks that precede the issuing of a permit should be as close as practical to the time the work is to begin and recorded on the entry permit. All persons associated with the confined space entry will witness equipment calibration before atmosphere is tested and witness the result of initial atmospheric monitoring.

The percentage of oxygen for unprotected entry into a confined space shall be no less than 19.5 percent and no greater than 22 percent. The oxygen level must be checked before the flammability test is conducted.

Entry will not be allowed if LEL is greater than 10 percent unless the confined space has been rendered inert.

Direct reading gas testing instruments are the only units approved for Confined Space Entry Jobs. Contact the Safety Coordinator if you have questions.

Those confined spaces that do not require respiratory protection based on the test results shall be continuously monitored with an oxygen meter during the performance of work. The area must be evacuated immediately if the oxygen content falls below 19.5 percent by volume if proper respiratory equipment is not being used. The area must also be evacuated immediately if the oxygen content rises above 22 percent by volume.

Continuous monitoring shall also be conducted for toxic gasses and combustible gasses (LEL) which may be released during the course of work. Continuous monitoring for toxic and combustible gasses is mandatory on all confined space work regardless of respiratory protection provided. The area must be evacuated if the combustible gasses rise above 10 percent LEL. The area must be ventilated to ensure the LEL is below 10 percent before re-entry is permitted. The confined space is continuously monitored because the LEL may rise above the 10 percent safe level.

If ventilation is required to evacuate the atmospheric area, all entrants will wear 4-gas monitors during the entire entry. These monitors will, at a minimum, check oxygen, lel, hydrogen sulfide, and carbon monoxide. Atmospheric monitoring will match the potentially present hazards. All persons wearing these devices will have received training in device operation before being asked to wear the devices.

Confined Space Entry Permits

The Entry Supervisor is responsible for completing the entry permit, the document that controls entry into a confined space, and enforcing any requirements identified on the permit.

Work in a confined space will not be allowed until a confined space entry permit is completed and a JSA has been held to review the entry permit. Permits must have an expiration time. Permits will not be valid for more than one shift. Entry Supervisor will vacate the space and void the permit at the end of the shift.

The entry permit shall be immediately voided if any condition or circumstance arises that was not anticipated when the permit was completed.

Any Jim Berry Contractors employee has the right and responsibility to ask to review calibrated air monitoring data before and during entry, especially if he believes the conditions have changed. If conditions change outside the scope of the original permit, the permit will be voided, all persons removed, and a new permit issued if the entry can be done safely. Jim Berry Contractors, if continuous monitoring is not being utilized, will periodically recheck the atmosphere and make a notation on the permit in the space provided. All persons in the confined space, as well as Attendants and Supervisors, will be made known of the current atmospheric conditions.

Employees, or their representatives, must be given an opportunity to request the space be reevaluated.

A copy of the permit shall be retained on file at the local safety office or field office where the work occurred for at least one year upon completion of the work.

The permit must be posted in a transparent envelope or large Ziploc bag at the entrance of the confined space during performance of work.

Confined Space Personal Protective Equipment

Authorized Entrants shall be provided with the proper respiratory equipment and operating instructions. This equipment shall be checked prior to use to ensure operability. Contract personnel entering a hazardous atmosphere shall provide their own respiratory protection equipment and it shall be used in accordance with a satisfactory respiratory protection program.

Proper personal protective equipment (gloves, goggles, hearing protection, etc.) shall be worn where applicable. The Safety Coordinator will assist in ensuring that the proper protective equipment is utilized.

All Authorized Entrants shall wear a full body fall protection harness. This shall be done even when no vertical hoisting equipment is provided, such as entries made horizontally, at ground level. Full body harnesses can greatly facilitate quick rescue in many situations, even if they only serve as a “handle”.

Attendant

In all cases of Permit-Required Confined Space entry, the Attendant(s) shall be posted outside of the entry exit in order to monitor the work environment for hazards that have the potential to endanger entrants. The Attendant(s) is also responsible for activating the rescue plan, if necessary.

The Attendant(s) shall be in constant communication, by the most practical and effective means available, with the individual(s) in the confined space. Circumstances may require that more than one Attendant be posted at different access/entry points.

The Attendant must not leave their duty station while Entrants are in the Permit-Required Confined Space, unless relieved by another trained Attendant.

The Attendant shall not perform an entry rescue unless he/she is properly trained and equipped as a Rescuer and another trained Attendant has relieved him/her.

Jim Berry Contractors does **NOT** allow a single attendant to monitor multiple confined spaces.

Rescue

A written rescue plan shall be developed prior to entering a Permit-Required Confined Space. The plan shall include, at a minimum:

- Means of notification;
- An assessment of the hazard;
- Appropriate recovery techniques;
- Personnel required to perform the rescue;
- Precautions to be taken while in the confined space;
- Personal protective equipment to be used;
- Rescue equipment needed;
- Tools or other special equipment needed; and
- Identification of emergency medical resources.

The rescue service shall be designated prior to conducting the entry. The rescue service may consist of training employees, contractors or community resources.

Regardless of the composition of the rescue service, the Safety Coordinator must formally evaluate the rescue service's ability to respond in a timely manner and the rescue service's proficiency with rescue-related tasks and equipment. Alternative or additional rescue services must be obtained if the rescue service is found deficient.

If the Permit-Required Confined Space contains an atmosphere that is Immediately Dangerous to Life or Health (IDLH), the rescue service must be in the immediate vicinity of the jobsite, and they must be prepared to perform a rescue at a moments notice.

The rescue service must be advised of the hazards they may confront when entering the Permit-Required Confined Space, and they must have access to the Permit-Required Confined Space so that they can develop appropriate rescue plans and practice rescue operations.

Rescue services must be either:

1. Provided by the host facility, or

2. Provided by an outside service which is given an opportunity to examine the entry site, practice rescue, and decline as appropriate, or

3. Provided by the employer by selecting a rescue team that is equipped and trained to perform the needed rescue services.

If the rescue service consists of Jim Berry Contractors employees, the following measures must be taken:

- Provide affected employees with the personal protective equipment (PPE) needed to conduct permit space rescues safely and train affected employees so they are proficient in the use of that PPE;
- Train affected employees to perform assigned rescue duties;
- Ensure employees successfully complete the training required to establish proficiency as an Authorized Entrant;
- Train affected employees in basic first-aid and cardiopulmonary resuscitation (CPR);
- Ensure that at least one member of the rescue team or service holding a current certification in first aid and CPR is available; and
- Ensure that rescuers practice permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, manikins, or actual persons from the actual permit spaces or from representative permit spaces.

To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an Authorized Entrant enters a Permit-Required Confined Space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Retrieval systems shall meet the following requirements:

- Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, above the entrant's head, or at another point which the employer can establish presents a profile small enough for the successful removal of the entrant.

- The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary.

- A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet (1.52 m) deep.

If an injured entrant is exposed to a substance for which a Material Safety Data Sheet (MSDS) or other similar written information is available, that document shall be made available to the medical facility treating the exposed Entrant.

Employee Training

Jim Berry Contractors shall provide training so that all employees who participate in confined space entry work acquire the understanding, knowledge, and skills necessary for the safe performance of the duties.

Training shall be provided to each employee:

- Before the employee is first assigned duties related to confined space entry;
- Before there is a change in assigned duties;
- Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained; and
- Whenever there is reason to believe either that there are deviations from the permit space entry procedures or that there are inadequacies in the employee's knowledge or use of these procedures.

The training shall establish employee proficiency by written tests, oral tests, and/or skills demonstrations.

Jim Berry Contractors shall certify that training has been accomplished. The certification shall include the employee's name, the trainer's signature/initials, and the dates of training. Certification must be made available to employees and their representative.

Employee Safety

Jim Berry Contractors management shall protect employees by ensuring that:

1. The space is protected from external hazards. Barriers must be erected if necessary to protect employees and the space from pedestrian, vehicular and/or any other external hazard. All employees are expected to advise the Attendant and/or Entry Supervisor of any situation/condition that is or potentially could be hazardous—including but not limited to hazards not covered by the permit, injury, near miss or misuse of PPE.
2. Authorized positions, including Authorized Entrants, Attendants, and the designated Entry Supervisor will be clearly listed outside of the confined space.

Management will ensure that **Authorized Entrants**:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- Properly use equipment;

- Communicate with the attendant as necessary to enable the attendant to monitor the conditions in the permit space while the permit is in force, and to enable the attendant to alert entrants of the need to evacuate the space;

- Alert the attendant whenever the entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or the entrant detects a prohibited condition; and exit from the permit space as quickly as possible whenever an order to evacuate is given by the attendant or the entry supervisor either verbally or with an evacuation alarm.

Management will ensure that each **Attendant**:

- Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;

- Monitors only a single confined space at a time—NO EXCEPTIONS;

- Is aware of possible behavioral effects of hazard exposure in authorized entrants;

- Continuously maintains an accurate count of authorized entrants in the permit space and accurately identifies who is in the permit space;

- Remains outside the permit space during entry operations until relieved by another Attendant;

- Communicates with Authorized Entrants as necessary to monitor entrant status and to alert Entrants of the need to evacuate;

- Calls for rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards—site-specific emergency protocol must be established and the equipment tested prior to entrance into the space;

- Monitors activities inside and outside the space to determine if it is safe for Entrants to remain in the space and orders the Authorized Entrants to evacuate the permit space immediately under any of the following conditions:

    a. A prohibited condition is detected;

    b. The behavioral effects of hazard exposure are detected in an authorized entrant;

    c. A situation outside the space that could endanger the authorized entrants is detected

    d. He/she cannot effectively and safely perform all of the required duties.

- Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:

    a. Warn the unauthorized persons that they must stay away from the permit space;

    b. Advise the unauthorized persons that they must exit immediately if they have entered the permit space; and

    c. Inform the Authorized Entrants and the Entry Supervisor if unauthorized persons have entered the permit space;

    d. Performs non-entry rescues; and

    e. Performs no duties that might interfere with the attendant's primary duty to monitor and protect the Authorized Entrants.

  An Attendant must be on duty outside the confined space for the duration of entry operations.

Management shall ensure that each **Entry Supervisor**:

- Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;

- Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin;

- Terminates the entry and cancels the permit when appropriate;

- Verifies that rescue services are available and that the means for summoning them are operable;

- Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations; and

- Determines, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

Contractors

When Jim Berry Contractors arranges to have contractors perform work that involves permit space entry, the Safety Coordinator shall:

- Inform the contractor that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program meeting the requirements of this section;

- Apprise the contractor of the elements, including the hazards identified and the host employer's experience with the space, that make the space in question a permit space;

- Apprise the contractor of any precautions or procedures that the host employer has implemented for the protection of employees in or near permit spaces where contractor personnel will be working;

- Coordinate entry operations with the contractor, when both host employer personnel and contractor personnel will be working in or near permit spaces—site-specific coordination procedures must be in place before multiple employers can work within the same space.

- Debrief the contractor at the conclusion of the entry operations regarding the permit space program followed and regarding any hazards confronted or created in permit spaces during entry operations.

Each contractor who is retained to perform permit space entry operations shall:

- Obtain any available information regarding permit space hazards and entry operations from Jim Berry Contractors;

- Coordinate entry operations with Jim Berry Contractors; and

- Inform Jim Berry Contractors of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces, either through a debriefing or during the entry operation. See Appendix for a copy of a confined space permit.

Program Review

Jim Berry Contractors will monitor the confined space program continuously through site reviews and document a program review annually. To insure program compliance, the following actions and supporting documentation will be reviewed:

- Correct confined space permit completion
- Training adequacy for all persons associated with confined space
- Any client additions or changes to policy
- Review of actual incidents or near misses associated with confined space

Jim Berry Contractors will have the Safety Director, Superintendent, and at least one member of upper management in the program review meeting. Changes will be made to policy and procedures at this time unless further information is needed.

If no entry is made during the previous 12-month period, no review will be conducted.

All confined space permits must be retained for a period of 12 months for purposes of program review.

Disciplinary Program

Jim Berry Contractors considers violations of the safety policy and procedures as serious. A great deal of time and money is spent training employees on the safe and proper way of performing their jobs. When those procedures are violated, progressive documentation of disciplinary actions resulting from those violations shall be completed, utilizing the attached "Employee Violation Form". Failure to follow verbal or written safety procedures, guidelines, and rules, horse play, and failure to wear or abuse of selected PPE constitute a safety violation.

The supervisor of the employee being warned shall complete this form and submit it for review, comment and approval to the Operations Manager and General Manager. When this has been accomplished, a copy shall be placed in the employee's personnel file. The following shall be used as guidelines when completing this form. Under certain situations, however, serious violations may require different or more severe actions, even for first violations. (Example: Drinking/substance abuse on the job).

Physical inspections by management that reveal violations and demonstrate an overall lack of commitment to the Jim Berry Contractors safety program by supervisors shall also be grounds for disciplinary actions.

The disciplinary protocol is as follows:

1. **First Warning**: Will be grounds for either an oral or written reprimand. An employee's first offense may be grounds for suspension or termination. If the Operations Manager or the General Manager, does not feel that actions taken by the supervisor are in the best interest of the company, documentation must include what actions were taken and justification for non-agreement with the supervisor's actions.

2. **Second Warning**: Will be grounds for a written reprimand or suspension without pay. May be grounds for termination. If the Operations Manager or the General Manager, does not feel that actions taken by the supervisor are in the best interest of the Jim Berry Contractors, documentation must include what actions were taken and justification for non-agreement with the supervisor's actions.

3. **Third Warning**: Will be grounds for suspension without pay or termination. If the Operations Manager or the General Manager, does not feel that actions taken by the supervisor are in the best interest of the company, documentation must include what actions were taken and justification for non-agreement with the supervisor's actions.

Employees Terminated for Safety Related Violations

Any employee terminated for a safety violation will not be eligible for re-hire for a minimum of 180 days from the date of violation. If, after 180 days, a former employee is rehired, that employee will undergo additional training, as necessary, for the previous safety violation.

Employees Terminated for Substance Abuse Violations

Any employee terminated for a substance abuse violation will not be eligible for re-hire for a minimum of 1 year from date of positive test result. The same applies for any pre-employment tests.

Employee Violation Form

Employee Name _____
Date of Warning _____
Employee/Payroll Number _____
Job Number/Location _____

Type of Violation

Attendance	Carelessness	Insubordination
Lateness/Early Quit	Failed to follow instructions	Violated safety rules
Failure to wear or abuse of selected PPE	Willful Damage to Material/Equipment	Lack of commitment to safety program
Unsatisfactory Work Quality	Violation of company Policies or Procedures	Other

Employer Statement Employee Statement

Date of Incident_____ Time _____am pm	_____ I agree with Employer's Statement _____ I disagree with Employer's description of violation. The reasons are:

Action to be taken: Warning Probation Suspension Dismissal
Other_____

Consequences should action occur again:
_____
_____
_____

I have read this Employee Warning Notice and understand it.

_____
Signature of Employee Date

_____
Signature of Supervisor issuing Warning Date

Routing:

Safety Manager (if safety related)/ **Operations Manager**/ **General Manager**/**Personnel File**

Electrical Safety: Qualified/Non-Qualified

This section addresses the safe working practices and the hazards faced by Jim Berry Contractors employees who perform work on exposed energized and de-energized parts or employees who come near enough to be exposed to the electrical hazards they present. Safe work practices will be employed to prevent Jim Berry Contractors employees from electric shock or other injuries resulting from either direct or in-direct electrical contacts when work is performed near or on equipment that may be energized. Jim Berry Contractors employees who face the risk of electric shock but are unqualified will be trained and familiar with electrically related safety practices. Employees will be trained in safety related work practices that pertain to their respective job assignments as well as clearance distances.

1. Only a qualified electrician will perform electrical work or repairs.

2. Electrical components will be locked and tagged out before they are worked on except when necessary to locate a definite problem and then only qualified electricians perform this work. Conductors and parts of electrical equipment that have been de-energized but not locked or tagged out should be treated as live parts.

3. While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been de-energized, the circuits energizing the parts shall be locked out or tagged out or both.

4. Live electrical equipment and components will not be worked on without proper non-conductive tools.

5. AC light plants will be grounded immediately when set on location. All other skids with electrical power will have properly sized grounding conductors connected to the generator skid.

6. Switches will never be thrown “in” or “out” under loaded circuit. All lighting fixtures shall be kept in good repair. Broken or burned out bulbs will be replaced as soon as possible, and vapor proof globes and guards will be kept in place over lights.

7. Drop cords and lights will have metal guards surrounding them unless this metal guard can become conductive.

8. All electrical cables will be protected from physical damage. Damaged or cut cables will be repaired, spliced, or replaced as soon as possible, broken or defective portable cables, such as a bug blower or extension cords will be cut to shorter length or replaced.

9. Electrically powered hand tools will not be equipped with a trigger locking device for continuous running and all should be properly grounded, or of the double insulated U.L. approved case design.

10. All 120 volt single-phase 15 and 20 ampere receptacle outlets on all jobsites, which are not part of the permanent wiring of the building or structure, shall be protected by an approved ground-fault circuit interrupter (GFCI).

11. Portable GFCI's shall be tested and inspected before each use.

12. Fuse pullers will be available at all times for changing electrical fuses. Periodic checks for proper circuit grounds of all electric outlets will be performed.

13. All high voltage panes (above 440 volts) will be clearly marked "**DANGER- HIGH VOLTAGE**."

13. Electrical apparatus and areas near electrical equipment will not be washed down with water.

14. Electrical hand tools will not be used while standing in water or outside during foul weather conditions.

15. Personnel rescuing a victim of electrical shock will first switch off the power causing the shock. If this is not possible, attempt to pull the victim away from contact with the live conductor using a dry stick, a dry rope, or other non-conductive material.

16. Jewelry and clothing that are conductive shall not be worn unless they are rendered non-conductive by covering, wrapping or other insulating means.

17. Any vehicular or mechanical equipment that is capable of having its moving parts or its structure elevated near overhead lines, will keep a clearance of at least 10 ft for lines containing 50kv. For every 10kv over 50kv, a distance of 4 inches will be added to the original 10 feet.

18. When an unqualified person is working on a line, he or she may not come close to any unguarded, energized overhead line than:

    a. For voltage to ground 50kv or below- 10 feet

b. For voltage to ground over 50kv- 10 feet, plus and additional 4 inches added to the original 10 feet for every 10kv over 50 kv.

19. If work is going to be performed near overhead lines, the lines will be de-energized and grounded or other protective measures will be provided before work is started

20. Only qualified persons (i.e. those permitted to work on or near exposed energized parts) may work on energized parts or equipment. These qualified people will be made familiar with the use of special pre-cautionary techniques, PPE, insulating & shielding materials and insulated tools.

21. When portable ladders are used near exposed electrical parts, they will have non-conductive side rails.

22. When working in confined spaces where electrical hazards may exist, the employer is responsible for providing the proper protective equipment. The employee will use protective shields, protective barriers or insulating materials as necessary to avoid contact with these parts.

23. Unless properly illuminated where Jim Berry Contractors employees can perform the job safely, employees may not enter a confined space containing energized parts.

24. In the event that an employee must handle long dimensional conductive objects in areas with expose live parts, the employer shall institute safe work practices to minimize the hazard. Examples of safe work practices include insulation, guarding and material handling techniques.

Employees must adhere to:

Voltage Range Minimum Approach Distances

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. (46 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. 0 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)

Training

All employees shall be trained in and be familiar with all electrical related safety practices which are necessary for their safety. The training received will be both in the classroom and in the field. The degree to which an employee must be trained will be determined by his/her job-specific risk of electrical-related injury.

The training for **qualified persons**, those authorized to work on or in the proximity of exposed energized parts, shall include, but not be limited to:

1. The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment.

2. The skills and techniques necessary to determine the nominal voltage of exposed live parts.

3. The clearance distances specified in # 18 above.

4. Special precautionary techniques, personal protective equipment, insulating and shielding.

Employees shall receive annual critical performance reviews and will be observed on an occasional basis. If at any time, an employee fails to follow the safety-related work practices mandated by Jim Berry Contractors, he/she will be retrained. Furthermore, an employee shall be trained (retrained) if he/she has not performed the assigned task within the previous 12 months, or there are new technologies, new types of equipment or changes in procedure.

NOTE: Only qualified persons may work on electric circuit parts or equipment that has not been de-energized. Whenever possible, employees are expected to de-energize equipment or lines prior to working on them.

The training for all other employees, **unauthorized persons**, will include:

1. A comprehensive understanding of the conductive properties of items in the vicinity of high-voltage.

2. Safe operating practices while in the vicinity of equipment that is engaged in work on high-voltage power lines.

NOTE: Additional precautions, such as the use of barricades or insulation, shall be trained on and implemented to protect employees from hazardous ground potentials, which can develop within the first few feet or more outward from the grounding point.

3. All employees will be trained on and familiar with the clearance distances specified in #18 above, as well as any other electrical hazards relevant to their position.

Fall Protection

General

Fall protection systems shall comply with 29 CFR 1910.66, Appendix C and 1926, Sub-part M. All fall protection systems shall be provided and installed before Jim Berry Contractors employees start the work that necessitates the fall protection. The fall protection plan shall be prepared by a qualified person for the specified work site.

Fall protection is required whenever employees are exposed to a potential fall from a height of six feet or greater. This includes work near and around excavations. Use of guard rails, a safety net or personal fall arrest systems shall be used when the standard methods of protection are not feasible, or when the standard measures would create a greater hazard. The exposure determination shall be made without regard to the use of PPE. Jim Berry Contractors shall determine the extent to which scaffolds, ladders or vehicle mounted work platforms can be used.

All accidents and serious incidents (near misses) must be investigated, and, if necessary, changes to the fall protection plan must be made.

Safety Monitoring Systems

Jim Berry Contractors shall designate a competent person to monitor the safety of other employees and we shall ensure that the safety monitor complies with the following requirements:

1. The safety monitor shall be competent to recognize fall hazards;

2. The safety monitor shall warn the employee when it appears that the employee is unaware of a fall hazard or is acting in an unsafe manner;

3. The safety monitor shall be on the same walking/working surface and within visual sighting distance of the employee being monitored;

4. The safety monitor shall be close enough to communicate orally with the employee; and

5. The safety monitor shall not have other responsibilities that could take the monitor's attention from the monitoring function.

Connectors, D-Rings and Snap Hooks

Connectors shall be drop forged, pressed or formed steel, or made of equivalent materials and shall have corrosion-resistant finish. All surfaces shall be smooth to prevent damage to interfacing parts of the system.

Dee-rings and snap hooks shall have a minimum tensile strength of 5,000 pounds and shall be sized to be compatible with the member to which they are connected to prevent unintentional disengagement of the snap-hook.

Effective January 1, 1998 only locking type snap hooks shall be used. Unless the snap hook is a locking type and designed for the following connections, snap hooks shall not be engaged:

- Directly to webbing, rope or wire rope;
- To each other;
- To a d-ring to which another snap hook or other connector is attached;
- To a horizontal lifeline; or,
- To any object which is incompatibly shaped or dimensioned in relation to the snap hook such that unintentional disengagement could occur.

Lifelines and Lanyards

Horizontal lifelines shall be designed, installed and used under the supervision of a qualified person, as part of a complete personal fall arrest system, maintaining a safety factor of two.

On suspended scaffolds or similar work platforms with horizontal lifelines (which may become vertical lifelines) the devices used to connect to a horizontal lifeline shall be capable of locking in both directions on the lifeline.

Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds. Except in hoistways of elevator shafts during construction, when vertical lifelines are used, each employee shall be attached to a separate lifeline. Lifelines shall be protected against being cut or abraded.

Self-retracting lifelines and lanyards that automatically limit free fall distance to 2 feet or less shall be capable of sustaining a minimum tensile load of 3,000 pounds.

Self-retracting lifelines and lanyards that do not limit free fall distance to 2 feet or less shall be capable of sustaining a minimum tensile load of 5,000 pounds.

Ropes and straps (webbing) used in lanyards, lifelines, the strength components of, and body harnesses shall be made from synthetic fibers.

Components

Waist belts shall <u>not</u> be used. Full body harnesses shall be used in all cases. The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head. Harnesses and components shall not be used to hoist materials.

Personal fall protection systems shall be inspected prior to each use for wear, damage and other deterioration; defective components shall be removed from service.

Provisions shall be made for prompt rescue of employees in the event of a fall or employees must be able to rescue themselves promptly. Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service. The affected equipment shall not be used again until it is inspected by a competent person and determined to be undamaged and suitable for reuse.

Training Requirements

1. Jim Berry Contractors shall provide a training program for each employee who might be exposed to falling hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.

2. Each employee shall be trained, as necessary, by a competent person qualified in the following areas:

    a. The nature of fall hazards in the work area;

    b. The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;

    c. The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used;

    d. The role of each employee in the safety monitoring system when this system is used;

    e. The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs;

    f. The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and

    g. The role of employees in fall protection plans;

    h. The standards contained in this subpart.

3. Jim Berry Contractors shall prepare a written certification of training record. The written certification record shall contain the name or other identity of the trained employee, the date(s) of the training as well as the dates the employer determined training was deemed adequate, and the signature of the person who conducted the training or the signature of a designated company person. We will accept training conducted by another employer but the certification record will indicate the date we determined that the prior training was adequate rather than the date of actual training. The latest training certification shall be maintained.

4. When Jim Berry Contractors has reason to believe that any affected employee who has already been trained does not have the understanding and skill required we shall retrain such employees. Circumstances where retraining is required include, but are not limited to, situations where:

    a. Changes in the workplace render previous training obsolete; or

    b. Changes in the types of fall protection systems or equipment to be used render previous training obsolete; or

    c. Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill.

Controlled Access Zones

Controlled access zones shall be distinguished by a control line, or other suitable and restrictive devices.

1. When used to control access to areas where leading edge and other operations are taking place, the following rules must be followed:

    a. When control lines are used, they shall be erected not less than 6 feet (1.8 m) nor more than 25 feet (7.7 m) from the unprotected or leading edge.

    b. We do not erect precast concrete members. Thus, paragraph 502(g)(ii) is not applicable.

    c. The control line shall extend along the entire length of the unprotected or leading edge and shall be approximately parallel to the unprotected or leading edge.

    d. The control line shall be connected on each side to a guardrail system or wall.

2. When used to control access to areas where overhead work is taking place:

    a. The controlled access zone shall be defined by a control line erected not less than 10 feet (3.1 m) nor more than 15 feet (4.5 m) from the working edge.

    b. The control line shall extend for a distance sufficient for the controlled access zone to enclose all employees performing work at the working edge and shall be approximately parallel to the working edge.

    c. Additional control lines shall be erected at each end to enclose the controlled access zone.

d. Only employees engaged in overhead work shall be permitted in the controlled access zone.

3. Control lines shall consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions as follows:

    a. Each line shall be flagged or otherwise clearly marked at not more than 6-foot (1.8 m) intervals with high-visibility material.

    b. Each line shall be rigged and supported in such a way that its lowest point (including sag) is not less than 39 inches (1 m) from the walking/working surface and its highest point is not more than 45 inches (1.3 m) [50 inches (1.3 m) when overhand operations are being performed] from the walking/working surface.

    c. Each line shall have a minimum breaking strength of 200 pounds (.88 kN).

On floors and roofs where guardrail systems are not in place prior to the beginning of overhead operations, controlled access zones shall be enlarged, as necessary, to enclose all points of access, material handling areas, and storage areas.

On floors and roofs where guardrail systems are in place, but need to be removed to allow overhead work or leading edge work to take place, only the portion of the guardrail inhibiting the required task shall be removed.

Safety Monitoring System

The project manager is the designated Competent Person responsible for monitoring the safety of the employees on the jobsite, and he/she shall comply with the following requirements. Before leaving the jobsite, the project manager will designate an appropriately trained competent person to be the safety monitor:

1. The monitor shall be competent to recognize fall hazards;

2. The monitor shall warn the employee when it appears that the employee is unaware of a fall hazard or is acting in an unsafe manner;

3. The monitor shall be on the same walking/working surface and within visual sighting distance of the employee being monitored;

4. The monitor shall be close enough to communicate orally with the employee; and

5. The monitor shall not have other responsibilities, which could take the monitor's attention from the monitoring function.

Jim Berry Contractors does not participate in roofing operations; therefore, paragraph 502(h)(2) does not apply to our plan.

Only employees covered by a fall protection system are allowed in an area that is being protected by a safety monitoring system.

Each employee working in a controlled access zone is required to comply promptly with the fall hazard warnings given by the safety monitors.

Equipment and Raw Materials

All equipment and raw materials purchased for use in Jim Berry Contractors fall protection systems must meet or exceed the applicable ANSI and ASTM requirements.

JIM BERRY CONTRACTORS, INC. PERSONAL PROTECTIVE EQUIPMENT
And FALL PROTECTION SYSTEMS

I, _____ acknowledge receipt of training on fall protection systems and their components.

Training was received on _____ , 20_____

Employee Signature _____ Date _____

Trainer's Signature _____ Date _____

NOTE: If a company endorsed form is unavailable to document the training, this form may be used.

APPENDIX A

Fall Protection Plans

Introduction

The site-specific fall protection plan shall be prepared and/or reviewed by the project manager, the designated Competent Person at each jobsite. The plan shall be developed specifically for the site where the leading edge work is being performed. The project manager is responsible for reviewing the plan on a regular basis and updating it accordingly.

- The project manager, along with the operator's Competent Person, must approve any changes to the fall protection plan.

- A copy of the fall protection plan with all approved changes shall be maintained at the job site.

- The implementation of the fall protection plan shall be under the supervision of the project manager, the designated competent person.

- The fall protection plan shall document the reasons why the use of conventional fall protection systems (guardrail systems, personal fall arrest systems, or safety nets systems) is infeasible or why their use would create a greater hazard.

- The fall protection plan shall include a written discussion of other measures that will be taken to reduce or eliminate the fall hazard for workers who cannot be provided with protection from the conventional fall protection systems. For example, Jim Berry Contractors, in concert with the host plan, shall discuss the extent to which scaffolds, ladders, or vehicle mounted work platforms can be used to provide a safer working surface and thereby reduce the hazard of falling.

- The fall protection plan shall identify each location where conventional fall protection methods cannot be used. These locations shall then be classified as controlled access zones (See below).

- Where no other alternative measure has been implemented, Jim Berry Contractors shall implement a safety monitoring system (See below).

- The fall protection plan must include a statement which provides the name or other method of identification for each employee who is designated to work in controlled access zones. No other employees may enter controlled access zones.

- In the event an employee falls, or some other related, serious incident occurs, (e.g., a near miss) Jim Berry Contractors, in concert with the host employer, shall investigate the circumstances of the fall or other incident to determine if the fall protection plan needs to be changed (e.g. new practices, procedures, or training) and shall implement those changes to prevent similar types of falls or incidents.

Fire Protection and Prevention

Almost all fires are preventable, and control measures can limit the losses if a fire does occur. A prevention program will involve employee training on material storage, inspections, and emergency action procedures. Employees of Jim Berry Contractors and its subcontractors will perform fire-fighting techniques on incipient stage fires ONLY. No Jim Berry Contractors employee is authorized to conduct fire fighting beyond incipient stages.

Fire prevention and control principles include the following:

1. Dispose of all waste in proper containers and keep work area clean and orderly. Do not allow accumulation.

2. The use of flammable solvents as cleaning agents is prohibited.

3. The engine of all equipment being fueled shall be shut off and allowed to cool before fueling operations begin.

4. Open flames shall not be used to locate leaks.

5. Smoking within 50 feet of operations, which constitutes a fire hazard, is strictly prohibited.

6. "NO SMOKING" signs will be posted and clearly visible around any area that constitutes a fire hazard.

7. All employees are responsible to know the location and operations of all fire extinguishers, hoses, and alarms.

8. All fire extinguishers will be properly mounted and marked as follows:

    - Mounted 3 ½ to 5 feet from top of extinguisher to floor

    - Not blocked by any equipment: free access at all times.

    - Marked properly and made clearly visible

9. All hoses and equipment must be properly grounded and bonded while being used around flammable materials.

10. Flammable materials must be stored in well-ventilated areas or in approved storage cabinets.

11. Perform welding/cutting operations and all other hot work in a safe location which is away from any fire hazard.

12. Keep all exits unobstructed.

13. Dispose of all cigarette butts, matches, and other hot items in proper containers.

14. Inspect all heaters and electrical cords/appliances before each use.

15. Do not overload electrical circuits or use frayed or defective electrical cords.

16. Drum dispensers should be of the self-closing type.

17. Routine inspections shall be performed for hazards and equipment maintenance.

18. Operations that generate dust or vapors must be performed in well-ventilated areas.

19. Heaters should be operated in areas free of combustibles or rubbish.

20. Have all fire extinguishers inspected monthly and records kept of each inspection. Furthermore, all fire extinguishers will be inspected and serviced annually by a third-party fire extinguisher service company. Both the annual and monthly inspections will be documented on tags attached to the fire extinguisher.

21. Monthly vision checks should include an inspection of the hose, nozzles, seals, gauge pressure, corrosion and dents. An inspection record will be maintained at each fire extinguisher as required by law. If the condition of a fire extinguisher fails to meet the manufacturer's definition of a satisfactory extinguisher, it shall be removed from the work area and tagged "Do Not Use".

22. Promptly discover the fire and extinguish it before it grows out of control. Most fires start small and can initially be extinguished by a hand-held fire extinguisher. Never place yourself in a situation where you could be harmed while fighting a fire.

23. Stand at least 6 feet away and up wind of the fire while you attempt to extinguish it.

24. Aim the spray nozzle at the base of the fire where the fuel is located.

25. Remember to use the **PASS** method.
    - **P**ULL
    - **A**IM
    - **S**QUEEZE
    - **S**WEEP

26. Remember the acronym **RACE**:
    - **R**ESCUE anyone that you can safely
    - **A**LARM everyone that there is a fire
    - **C**ONTAIN the fire by shutting all doors and windows, and by removing flammable items.
    - **E**XTINGUISH/**E**VACUATE if possible, put out the fire in its incipient stage only, and then evacuate to the designated emergency staging area for a head count.

27. In areas where extinguishers are visibly obstructed, their locations shall be marked with signs or painted symbols that are high enough and legible enough to be recognized and seen.

28. Whenever an extinguisher is used for any amount of time, it shall be removed from service, taken out of view until recharged, and reported to a supervisor immediately. Once the pressure seal on a fire extinguisher is broken, the pressure will bleed down; therefore, any used fire extinguisher must be refilled and re-pressurized. No used extinguishers can be left lying about for any reason.

29. Whenever there is hot work being done, a sufficient number of portable fire extinguishers will be present to help in the event they are needed.

30. All persons will be trained on the proper use, function and deployment of fire extinguishers. This shall be done during New Hire Orientation or upon initial assignment, and at least annually thereafter. Training will consist of the following:

    - Types and sizes of fire extinguishers
    - Types of fires.
    - Fires specific to Jim Berry Contractors tasks (over-heated equipment, oil and gas fires)
    - Incipient stage fire fighting and the hazards related to it
    - Fire tetrahedron
    - First aid for burns
    - All other components of the Jim Berry Contractors Fire Protection and Prevention policy.

First Aid /Cardiopulmonary Resuscitation (CPR) Procedures

Definition of First Aid: *Immediate care given to a victim of an accident or sudden illness until a higher level of medical skill and care can be provided.*

Special Note: If you are in a situation that requires medical services of any kind, you are required to notify the Emergency Medical System (EMS) by calling 911. Each jobsite will have at least one employee who has a current certification in First Aid and CPR such as American Red Cross or equivalent. It is the responsibility of crew pushers and supervisors to render first aid, and it is the policy of Jim Berry Contractors to provide all employees with training in First Aid on a three-year rotation and CPR annually. A valid certificate in first-aid training must be obtained from the U.S. Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence.

Prior to commencement of a project, determine the availability of the Emergency Medical System (911). In areas where the 911 system is not available, an emergency contact document will be given to each person on the job site, a copy will be put in every first aid kit, and a copy shall be clearly posted for all employees on the job site. This document will include the numbers of the physicians, hospitals or ambulances in the area. In the event that an ambulance is not warranted or available, a supervisor that is fluent in the language of the injured employee is responsible for transporting the injured employee to an emergency facility.

Always remember to ensure the scene is safe for you to enter before you attempt to administer any type of rescue. If you are going to enter a hazardous atmosphere, ensure you are wearing appropriate breathing equipment for the environment. If there are electrical hazards of any kind, ensure that the electric current is turned off before you attempt a rescue.

Specimens of blood or other potentially infectious materials must be double-bagged in the leak-proof, red biohazard bags and disposed of properly. These bags are found in the first aid kit provided by the company.

The following are guidelines to use in the field for common situations.

Victim has Stopped Breathing—Situation: *Critical*

Two types of breathing emergency scenarios include:

1. Not breathing with a pulse: Requires rescue breathing

2. Not breathing without a pulse: Requires Cardiopulmonary Resuscitation (CPR)

Not breathing with a pulse. It is essential to check for a pulse when you assess any victim. You can check for a pulse at the carotid artery on the victim's neck. This can be located by placing your first two fingers on the Adam's apple region of the neck and sliding your fingers towards yourself until you reach about midway or just shy of ¼ around the neck. Be sure to use your fingers and not your thumb.

If the victim has a pulse then the rescuer must sustain life by providing rescue breaths.

- Ensure the victim is out of harm's way.
- Perform a head tilt-chin lift to open the victim's airway.
- Administer 1 rescue breath every 5 seconds (about 12 per minute).
- Ensure your breaths enter the victim's lungs by watching the chest rise and by feeling your own lungs exhaling.
- Continue for 1 minute before rechecking for the pulse.
- You will continue until another first responder relieves you, if EMS arrives, or you become too physically exhausted to continue.
- Trained personnel will accomplish the administration of Grade D breathing air.

Common situations that can cause the victim to stop breathing but continue to have a pulse might include but are limited to; inhalation of gas vapors, oxygen deficient environment, smoke inhalation, drowning or electric shock.

Always check for a pulse; never make an assumption!

Not breathing without a pulse. This is an indication that the victim is not only not breathing (taking in oxygen), but the victim's heart is not pumping the already oxygen depleted blood throughout the body. This is a critical time. You, as the first responder, must sustain life by introducing oxygen through artificial resuscitation, while helping distribute the oxygen manually (chest compressions). This is Cardiopulmonary Resuscitation.

Cardiopulmonary Resuscitation (CPR)

CPR is to be administered by First Aid/CPR certified individuals. If you are not trained and certified in First Aid/CPR and are confronted with this situation, always <u>assist to the best of your ability</u>: summon help, confront the victim, and attempt CPR, etc.

If the victim needs CPR, then remember the following:

- Ensure the victim is out of harm's way
- Perform a head tilt/chin lift to open the victim's airway
- Give two steady breaths that last approximately 1-3 seconds
- You will need to check for a pulse at this time on the victim's carotid artery. If no pulse found then proceed to next step. If you do find a pulse, continue with rescue breathing as is covered in above section.
- Give 15 chest compressions approximately 1"-1 ½" deep
    - **NOTE:** You can find proper hand placement by tracing the victim's rib cage up until you find the sternum. Place your fingers on the sternum, then place your opposite palm just above you fingers that are on the sternum. Then place the hand you used to find the sternum on top of the hand resting on the victim's chest. This will give you the proper hand placement to begin chest compressions

- Administer two breaths into the victim. This is the 15:2 ratio of CPR.
- This ratio will be completed 4 complete times before you recheck for a pulse.

When to stop CPR:

1. When another person trained in CPR relieves you,

2. When paramedics or EMT personnel arrive,

3. When the situation endangers your safety and health, or

4. When you become too exhausted to proceed.

Things to remember:

- Always use ***Universal Precautions***: assume every other person's blood or body fluids are contaminated, and protect yourself accordingly.
- Always wash your hands before and after giving first aid. If there are no hand washing facilities available, hand sanitizer found in the first aid kit must be used.
- Use latex or similar type gloves when treating someone
- Wear goggles if possible to protect against splash hazard
- Be prepared to break ribs during CPR
- And breathing barriers are an excellent way to prevent contamination during CPR

Heart Attack

- Immediate notification of the EMS system is essential. Call 911.
- Treat for shock (see below)
- Try to keep the victim calm and make them as comfortable as possible.
- Monitor the ABC's— **A**irway **B**reathing **C**irculation: If the victim is talking to you, you know that he/she is breathing. If they become unconscious, do a head tilt/chin lift to maintain an open airway. Check for breathing and monitor the pulse. If the victim needs CPR you will be prepared.

Severe Bleeding

- Apply direct pressure to the wound with a dry, clean, sterile pad or gauze.
- If possible, have the victim apply the bandage. This helps control shock by giving the victim something to focus on, and it helps to keep the rescuer away from the victim's blood
- Keep the wound elevated above the heart if possible
- If bleeding will not stop, then apply pressure at the applicable pressure points. For injuries of the arm, find the brachial artery located along the upper arm bone on the inside if the bicep. For injuries of the leg, find the femoral artery located next to the pubic region where the leg and pelvis come together.

Have victim seek medical attention after first aid attempts were successful. If you cannot get blood to stop, then you may need to call 911.

Fractures or Breaks

Common signs and symptoms include severe pain, muscle spasms, weakness or numbness below the suspected area, and the victim guarding the suspected area.

- If you cannot get victim out safely, call 911
- Splint the injured limb above and below the nearest joint. This prevents the parts from moving
- Never move a suspected broken limb. Splint in place.
- Monitor the ABC's and treat for shock if the victim begins to show signs

Chemical Exposure

Treatment for chemical exposure will be based on MSDS recommendations. MSDS books will be readily available at each jobsite for reference. Eye wash equipment should be capable of providing a 15-minute supply of cleansing solution, to be used for flushing chemicals from the eyes or off of the body. A safety shower shall be available in the work area for flushing of skin in the event of an exposure to a chemical Drinking water may also be used. The person taking the employee to emergency services will bring along a copy of the MSDS sheet.

Shock

Shock happens when a victims entire system begins to shut down.
Symptoms of shock include: cold and clammy skin, pale complexion, shallow breathing, and rapid pulse. Many things can cause shock *such* as a severe injury, witnessing a trauma, infection, pain, heart attack, stroke and or heat exhaustion.

- Notify EMS (Call 911)
- Have victim lie down
- Elevate feet 8 – 12 inches if no spinal trauma suspected
- If possible have the victim's head slightly lower than the his/her heart
- Keep the victim comfortable
- Monitor ABC's until help arrives

Heat Exhaustion

Following heat cramps, heat exhaustion is the warning sign of a potential heat- related emergency. You must take care of yourself and your co-workers at this critical time.
The signs and symptoms of heat exhaustion include, pale complexion, clammy skin, headache, nausea, weakness, high body temperature and excessive sweating.

- Treat for shock.
- Get victim out of heat and into a shaded cool place.

- Have victim lie down with head below heart level.
- If conscious, give victim something to drink.
- Monitor the ABC's and seek medical attention.

Heat Stroke

Heat stroke is a medical emergency that is life threatening. If medical attention is not administered, the victim can face coma and/or death. Signs of heat stroke include but are not limited to; flushed and /or hot skin, sweating stops or slows noticeably, Strong rapid heart rate (pulse), body temperature significantly above normal (normal is 98.6^{O}F), headache, nausea, dizziness and finally unconsciousness.

The victim needs immediate attention.

- Call EMS (911)
- Get victim out of heat, into shade, a building, or whatever provides a cover from the heat
- Rapidly cool the victim by applying cool water to the victim's entire body. If only dirty puddle water is available, then use it.
- Monitor the ABC's and assist the victim with whatever he/she needs until help arrives.

Burns

First and foremost, you must remove the victim from the source of the burn (example: If electrical, turn off power).

- Treat for shock
- Protect the burned area with sterile dressings or gauze
- Control the pain
    a. Place burned appendage in cool running water such as a sink and faucet
    b. Give Ibuprofen (an anti-inflammatory)
    c. Give acetaminophen (a pain reliever)
    d. Ask victim if they are allergic before assisting in administering any medicine.
    e. Neither will counteract with each other.

Things to remember:

If it is a chemical burn you are dealing with, remember to read the MSDS before flushing the eyes. If you do not read the MSDS you can make matters worse by mixing water with a chemical that reacts to water.

If you are going to flush your eyes and skin, brush powered chemicals away first, and remove unnecessary clothing. Flush for 15 minutes at a minimum.

Use only clean, clear water for flushing. Contact a physician for any chemical burn.

Insect/Animal Bites

Any sting or bite from an insect with venom, i.e., wasps, bees, spiders, fire ant, etc, should be reported to your supervisor immediately. Some people can react quite severely to insect stings and bites. This is called **anaphylaxis**. Insect or medications, certain foods, or even pollen can cause this type of reaction. Anaphylaxis will usually occur within minutes of the exposure and can peak around 15 to 30 minutes, usually ending after a few hours. **Signs and symptoms of anaphylaxis include**: sneezing, coughing, wheezing, difficulty breathing, swelling in the throat, tightness in the chest, rapid heart rate, swelling of the tongue, nose and mouth, blueness around lips and mouth, dizziness, nausea and vomiting.

What do you do?

- Monitor the ABC's
- Get medical attention immediately
- Help administer medication (epinephrine, Dr. prescribed) if they have it.

Bees and Wasps:

- If bee sting, remove the bee stinger that is carrying the venom by scraping the stinger with an ID card (Driver's License) to allow the barbed end to "pop" free of your skin.
- Wash the sting site with soap and water to stay off infection
- Apply ice pack to site to slow absorption and relieve. A paste of water and baking soda will help draw out the venom.
- Ibuprofen will help reduce swelling and acetaminophen will help relieve pain, and hydrocortisone will help with itching.
- Monitor victim for at least 30 minutes for any signs of reaction. If you notice reaction, then seek medical attention.

All Spiders:

Most all spiders carry some form of venom, however, only a few are highly poisonous. The Brown Recluse and the Black Widow are the biggest spider concerns that we will have in our region. However we must take care for all spider bites.

What to do if bitten?

- Try and capture the spider if at all possible, even if has been crushed by the victim, so that it can be taken to the hospital
- Clean the bite site with soap and water or rubbing alcohol
- Apply ice to slow venom and relieve swelling
- Give ibuprofen and acetaminophen for swelling and pain
- Monitor the ABC's
- Seek medical attention immediately.

NOTE: Anti-venom exists for Black Widows; however, it is usually reserved for children under six and adults over 60, pregnant women and those victims having a severe reaction to the venom.

Snakes

There are four types of poisonous snakes in our area of operation with which we must concern ourselves: *Water Moccasin (Cottonmouth), Rattlesnake, Copperhead,* and *Coral Snake*.

Signs and symptoms of snakebite:

- Severe burning at the bite site
- Two small puncture wounds that about ½" apart
- Swelling at the site (usually within 5 minutes)
- Discoloration and blisters filled with blood developing 6+ hours later
- In some cases, nausea, vomiting, weakness

Pit Viper Bites:

- Get victim away from snake. They can strike repeatedly and they can strike up to half the distance of their bodies. Even a decapitated snake can have movement and release venom for up to 20 minutes after decapitation.
- Calm the victim and either carry them or have them walk with you slowly to help.
- Wash the bite site gently with soap and water.
- If you have a venom extractor and you are more than one hour away from medical facilities, you should use it now. A venom extractor is a device used to pull the venom out of a victim. **Do not cut and suck the bite site**.
- Anti-venom (if available) is the same used for all three pit vipers in North America. So get to the hospital as soon as possible.

Coral Snake Bites:

- Calm the victim
- Wash the bite site gently with soap and water.
- Apply mild pressure by wrapping the bite site and entire appendage (arm or leg) that was bitten in several elastic bandages. This is only done for coral snake bite, not pit viper bites.
- Seek medical attention immediately for anti-venom (if available)

NOTE: It is important to remember that coral snakes are not aggressive and do not strike their victims; they have to "chew" to release their venom.

Mammal Bites

Dog, raccoons, bat, fox, and skunk bites are the most common. If a skunk, raccoon, bat or fox bites you in North America, you must consider beginning rabies treatment immediately.

- If bitten in the U.S. by a healthy and domestic dog or cat, the animal must be observed for at least 10 days for any sign of illness
- If the animal is a stray, it should be reported to animal control immediately for capture and testing.
- Clean the wound with soap and water and rinse it with mild pressure
- Stop any bleeding and care for the wound
- Get medical attention for better cleaning and possibly a tetanus shot. The Doctor will assess the need for stitches and/or rabies treatment.

Personal Protective Equipment Recommendations

If there comes a time when you may be required to render first aid to another person, the following PPE recommendations should be adhered to:

Act	Gloves	Mask	Eye Protection	Mouth Barrier
Rescue Breathing	Yes	Not Needed	Yes	Not Needed
CPR	Yes	Not Needed	Yes	Yes
Excessive Bleeding	Yes	Yes	Yes	Not Needed
Slight Bleeding	Yes	Not Needed	Yes	Not Needed
Cleaning Potentially Contaminated Equipment and Surfaces	Yes	Not Needed	Yes	Not Needed
Taking Temperature	Yes	Not Needed	Not Needed	Not Needed

PPE will be provided by Jim Berry Contractors.

Recommended First Aid Kit Contents

- ¾" to1" X 3" adhesive bandages
- 2" X 4" adhesive bandaged
- 3" X 3" gauze pads
- 4" X 4" gauze pads
- 2" X 4yards roller gauze
- 3" X 4yards roller gauze
- 1" wide adhesive tape
- Finger tip bandages
- Knuckle bandages

- Iodine antiseptic
- Scissors
- Latex or similar gloves
- Triangle bandage for a sling
- Biohazard bag (Red Bag will be adequate)
- Instant Ice Pack
- Blanket
- Eye wash solution
- Antibacterial Hand Sanitizer

Recommended medications include:

- Ibuprofen, 200 mg tablets
- Acetaminophen, 500 mg tablets
- Benadryl, 25 mg tablets (Insect bites and allergic reactions)
- Triple antibiotic ointment

Employers should ensure the availability of adequate first-aid supplies, and periodically reassess the demand for supplies and adjust their inventories. For construction operations, first-aid kits shall be checked before being sent out to each job and at least weekly. These items will be kept in a weather-proof container and all items will be sealed individually. There will be a First Aid Kit in every company vehicle. These kits will remain on the jobsite during working hours. The First Aid Kits will be inspected by a supervisor prior to being sent onto a job site and truck kits will be inspected at least weekly.

Where the eyes or body of any person shall be exposed to any corrosive or harmful materials, there will be an eye/body wash station present.

Forklift Operations

Purpose

This program has been written to comply with the requirements set forth in 29 CFR 1910.178 Powered Industrial Trucks. This program is designed to outline the safety requirements of lift trucks. It is not intended to outline procedures for automobiles or pickup type trucks.

Scope

This program covers all employees certified to operate lift trucks for Jim Berry Contractors. The Jim Berry Contractors lift truck operator safety program mandates that all operators must:

- Be classroom trained. Classroom training is to include lecture and discussion, videos, written materials and interactive computer instruction.
- Have hands-on training, including instructor demonstrations and trainee exercises, on the specific type of lift truck they will be operating
- Pass a written examination
- Pass a critically documented observation on the practical use of the lift truck(s) they will be operating—see "Observation Form" in Appendix A on p. 5.

Lift truck operator instructors must have the experience and aptitude necessary to pass a critically assessed competency evaluation on a bi-annual basis. Instructor evaluations and the documentation collected during training will be kept on file in the employees' training files. Operators are only authorized to drive those vehicles on which they have been certified; in the event there are multiple types or brands of lift truck present on a job site, an operator is only authorized to drive those lift trucks on which he/she has been certified.

Instruction in Forklift operations must cover:

Truck-related topics:

1. Operator instructions, warnings, and precautions for the types of truck the operator will be authorized to operate
2. Difference between truck and automobile
3. Truck controls and instrumentation; where they are located, what they do, and how they work
4. Engine and motor operation
5. Steering and maneuverability
6. Visibility and restrictions of such
7. Fork and attachment adaptation, operation, and use limitations
8. Vehicle capacity
9. Vehicle stability
10. Vehicle inspections
11. Refueling and recharging
12. Operating limitations

13. No additional riders on forklifts
14. Any other instructions found in Operator's Manual

Workplace-related topics:

- Surface conditions
- Composition of loads and load stability
- Load manipulation
- Pedestrian traffic
- Narrow aisles ways
- Hazardous (classified) location where may be operated
- Ramps and other sloped surfaces
- Closed environments and poor ventilation areas
- Any other potentially hazardous environmental conditions

Refresher Training and Re-Certification

In order for Jim Berry Contractors to ensure that adequately trained and competent people are operating our equipment, refresher training is mandatory as per 29 CFR 1910.178 (l)(4)(i)(ii).

Refresher training shall be provided when:

- The operator has been observed operating unsafely;
- The operator has been involved in an accident or near-miss incident;
- The operator receives an evaluation that reveals the operator is not operating the truck safely;
- The operator is assigned to drive a different type of lift truck;
- Changes in the condition of the workplace could affect the safe operation of the lift truck.

Certification

Jim Berry Contractors requires re-certification every three years or as prescribed above. Certification shall state the name of the operator, date of training, date of evaluation, type of lift truck authorized to operate, and the name of the instructor. ***Only certified and authorized employees may operate lift trucks.***

Inspections

Inspections shall be made by the operator at the beginning of each shift and the lift truck put into service only if the inspection reveals it to be in acceptable operating conditions. Common inspection points may be but are not limited to: Fluid level, fluid leaks, steering controls, seat belts if installed, brakes, tires, wheels, capacity chart, horn, lights, alarms, gauges, mast, forks, controls, roll over protection. Such examination shall be made at least daily. Where industrial trucks are used a round-the-clock basis, they shall be examined after each shift. Inspection forms shall be completed and returned to the appropriate person for repair and record keeping.

When Defects are Discovered

No lift truck shall be operated when any defect that affects the safe operating performance of the truck has been found.

The lift truck must be removed from service and tagged “Out of Service”. The operator’s manual will give advice on safe operation.

Repairs

Only properly trained and authorized employees may attempt repairs. Modifications and additions to a lift truck may only be conducted with written permission by the manufacturer. Capacity changes must be made accordingly and placed on the capacity chart.

Load/Capacity Charts

Load or capacity charts are to be adhered to without exception. The capacity of a lift truck is based on the amount of weight a lift truck can safely lift with the center of gravity at the midpoint on the forks. This is a critical factor in lift truck operations and Jim Berry Contractors cannot stress compliance enough.

Transporting a Lift Truck

Jim Berry Contractors requires that operators verify that the vehicle from which a lift truck is being unloaded, or the vehicle a lift truck is being loaded onto is properly secured in advance—fixed jacks, trailer chocks, brakes, supports and dock plates, etc. may be necessary to satisfy this requirement.

Appendix A
Forklift Operator Observation/Evaluation Form

OSHA rule 29 CFR 1910.178(l) on the training of powered industrial truck operators requires employers to observe & evaluate the performance of their lift truck operators during a three (3) year cycle.

Operator's Name: _____ Date: _____ I (Observer/Evaluator) _____observed the above named operator doing the following:

	Safe Operator Actions:		
1.	Do and Record results of Daily/Shift Examination of truck s/he is driving.	**No**	**Yes**
2.	Dead stop at least one(1) truck length from pedestrians or other hazards in path of travel.	**No**	**Yes**
3.	Move mast/upright controls ONLY when truck is at dead stop.	**No**	**Yes**
4.	Park truck 4 or more feet away from marked pedestrian walkways, emergency equipment or exit ways.	**No**	**Yes**
5.	Travel with load no higher than the distance of the drive wheel axel(s) to the travel surface (Approx. 6,10,or 18 inches for typical trucks).	**No**	**Yes**
6.	Pick up loads without sliding or "barging".	**No**	**Yes**
7.	Place loads without "poking" or pushing or touching other loads, racks or building members.	**No**	**Yes**
8.	Before abandoning truck, set parking brake, neutralized all controls and removed key from switch.	**No**	**Yes**
9.	Before entering trailer or rail car, place chock in correct position.	**No**	**Yes**
10.	Sound horn BEFORE moving from dead stop.	**No**	**Yes**
11.	Dead stop BEFORE all blind corners, through intersections, and marked pedestrian walkways.	**No**	**Yes**
12.	Travel with all body parts within operator's compartment or platform.	**No**	**Yes**

General Safety Policy

Jim Berry Contractors believes that all work can be performed without people being injured or the environment being damaged. To help make this philosophy a reality and to allow Jim Berry Contractors employees to apply it to their daily activities, a health and safety and environmental management system was created.

Jim Berry Contractors is committed to providing a safe and healthful work environment, and has developed a Safe Work Manual to provide a framework for leadership at all levels in the company. This emphasis on health and safety culture is part of what makes Jim Berry Contractors a great place to work. The management team is committed to providing the leadership and resources to achieve a *world-class* safety system with *world class* results. Indeed, this is what our customers expect. It is our belief that both Jim Berry Contractors employees and subcontractors will share in the successful implementation of the Safety Management System.

Management is continually taking initiative to strategically improve the safety culture by:

- Improving safety awareness by providing orientation, training and education
- Employing best industry work practices
- Ensuring proper assessment and mitigation of hazards in the workplace
- Conducting regular audits and inspections
- Ensuring proper reporting and investigation of incidents
- Implementing behavior-based techniques to instill safety as a value
- Establishing rules for situations where employees refuse to work due to imminent danger
- Controlling documents and records
- Reviewing performance and setting annual goals and objectives for safety performance

An overall safety policy has been developed to provide guidance to the health and safety performance Jim Berry Contractors intends to achieve. The policy is supported by the Safety Values, which is signed by all members of senior management. The policy is made available to our employees, clients, sub-contractors and the general public. The Safety Values posting is prominently displayed in Jim Berry Contractors offices and includes the signatures of the employees at that location.

Safety management is integral to all aspects of operations at Jim Berry Contractors, and composed of eight structured and documented elements designed to ensure and demonstrate that health and safety objectives are met. These elements are:

1. Policy
2. Organization, Responsibilities, and Objectives
3. Risk and Regulatory Management
4. Administration
5. Operations
6. Monitoring and Control
7. Audit
8. Management Review and Continual Improvement

Company Safety Values

The safety values of Jim Berry Contractors are an integral part of the overall corporate philosophy towards safety. Each office has a copy of this in poster form with room for both managers and employees to sign showing their commitment to the Values. New employees are asked to sign during the orientation process. The requirement for hanging the poster in the office area, and even in permanent job trailers, is included on our corporate safety audit checklist.

We Believe:

- All incidents and injuries are preventable
- Leadership is required for success in safety
- Each of us has a personal responsibility for our safety and the safety of others, both on and off the job.
- No job is so important that it will be pursued at the sacrifice of safety
- Working safely is a condition of employment

We Will:

- Dedicate the appropriate time, energy and resources to making safety an everyday part of what we do
- Perform a hazard analysis prior to each job task
- Report all safety hazards, injuries and incidents, including near misses and first aid cases
- Refuse any request to perform work that is unsafe
- Actively participate in creating a culture that embraces safety

Specific Guidance for Use of Tools and Machinery

The proper use of tools and equipment is a key concern to Jim Berry Contractors. Employees must be sure to follow all manufacturer procedures for the use of tools and equipment. First, employees must have training in the use of tools or machinery. For hand tools, this can be done locally by experienced personnel. For complex machines, such as aerial lifts, the training will be structured, taught by certified professionals and documented. Specific procedures for this type of equipment are contained elsewhere in this manual.

Most importantly, employees are instructed not to use a defective tool, one in need of repair or calibration. Use of such tools (or machinery) is prohibited. Defective tools must be clearly tagged “Out Of Service,” and placed out of the work area until repaired and ready for use.

Safety Management System Policy

The management of Jim Berry Contractors expects that all personnel will work in a safe manner. The management will support all safety practices and codes recognized in our industry and will ensure that all employees have access to the approved personal protective equipment, proper tools, a safe environment and appropriate training. We expect the employees of Jim Berry Contractors to practice safe working procedures and habits so as not to incur injury to themselves, their co-workers, clients or the general public.

It is a Jim Berry Contractors philosophy that a goal of *Zero Injuries* is possible, and we are committed to continually develop a strong culture to ensure a positive attitude toward safety. This policy of protecting our employees is also protecting their families, friends, fellow workers, the public and the environment from the ripple effect of serious incidents.

It is our goal to become industry leaders through our performance, adherence to regulations and our Safety Management System.

All employees of Jim Berry Contractors are able to access the contents of this safety manual and other safety related documents. We welcome suggestions with respect to improvements in our Safety Management System.

Grounding Conductor Program (GFCI)

Objectives

To provide guidelines to ensure that:

A. Temporary electrical installations are installed and used in a safe manner and per the manufacturer's restrictions.

B. Electrical hazards do not endanger any affected person on a Jim Berry Contractors job site.

C. Procedures are in place for a proper inspection format for electrical tools and extension cords.

Note: The Occupational Safety and Health Administration on December 21, 1976, announced a new standard on Ground Fault Protection on construction sites, effective February 22, 1977. OSHA offers two types of systems to comply with this standard: the Ground Fault Circuit Interrupter System and the Assured Equipment Grounding Program.

Jim Berry Contractors knows, and requires the use of, the GFCI standard. This standard states that all 120-volt, single-phase, 15 and 20 amp receptacle outlets, which are not part of the permanent wiring of the building or structure and are being used by employees, shall have approved ground fault circuit interrupters (GFCI) for personnel protection. Portable GFCIs may be used.

The Assured Equipment Grounding Conductor Program (this program) implemented by Jim Berry Contractors covers all cord sets, receptacles that are not a part of the permanent wiring on the building or structure, and equipment connected by cord and plug, which are available for use or used by employees.

This program is standard operating procedure. A copy will be on site and available for inspection and copying by the Assistant Secretary and any affected employee.

Function and Responsibilities

The Shop Foreman or his designee shall meet the requirements of the Competent Person be responsible for implementing the program. The designated Competent Person will be trained through the Safety Department to recognize potential hazards; this training will documented. The Competent Person will be able to identify hazards and is empowered by this program to take prompt corrective measures. Corrective Actions will include, but not be limited to, removing any defective electrical equipment from the work area and rendering hazardous equipment non-operational until repairs are completed. The Shop Foreman, with the assistance of the Safety Department, will complete required inspections, other than daily, and keep these records on file.

The Safety Department shall assure that all employees are aware of the requirements of this program and their responsibilities with regard to daily inspections to insure its integrity. The Shop Foreman will ensure that any new electrical equipment affected by this policy is placed into the inspection format.

Practices and Procedures—Routine Inspections

There are three types of inspections that are conducted at Jim Berry Contractors:

1. **Daily Inspections**

   Daily Inspections are to be performed by the individuals who use the equipment. The Supervisor will properly train these persons. The inspection shall consist of visually inspecting for:

   - Frayed or missing insulation
   - Missing terminal connection pins
   - Damaged housing covers
   - Missing guards
   - Integrity of cord sets, attachment cap, and plug and receptacle of cord sets, etc.

   If any of the hazards listed or any other identifiable hazard is detected during the inspection, the electrical equipment shall be immediately removed from service and repaired. The equipment will also be tagged with a red tag saying "DO NOT USE". No person other than a qualified electrician may repair this equipment. There are no written reports or documentation required on the daily inspection.

2. **Immediate Inspection and Tests**

   These are conducted by the Shop Foreman or other Competent Person (by Shop Foreman designation) and are mandatory:

   - Before first use
   - After any repairs
   - Following an incident that could have caused damage to the affected equipment (i.e. when a cord is run over)

   Record the results of Immediate Inspections on the Assured Equipment Grounding Log.

3. Periodic Inspections and Tests

The Shop Foreman or his designee conducts these at the following intervals:

One week: All temporary power (GFCI) receptacles and temporary lighting (Note: GFCIs must be tested with an approved device.)

One month: All portable equipment (such as drills, grinders, saws, drop cords, etc.) and all receptacles on permanent power.

Three months: All service wiring on temporary buildings; outside feeders, etc.

Six months: Cord sets and receptacles not subject to damage.

The testing requirements for immediate and periodic inspections are identical.

These are two test required:

1. All equipment grounding conductors shall be tested for continuity.

2. Each receptacle and attachment cap or plug shall be tested for correct attachment of equipment ground conductor. The equipment-grounding conductor shall be connected to its proper terminal.

    - Continuity checks may be conducted by using an ohmmeter or other testing devices that will assure the ground continuity.

    - Equipment will be color-tagged as it is inspected. Each month will have the same color and the Shop Foreman will determine the color for the inspection interval.

    - Results of the inspection will be recorded on the Assured Equipment Grounding Log.

NOTE: No electrical equipment affected by this policy can be used until all actions required by this policy have been taken. Furthermore, it is mandatory that any piece of equipment which does not meet the requirements of this program be immediately removed from service and tagged "DO NOT USE."

Proper Tool Usage

1. All tools, whether owned by Jim Berry Contractors or employee, must be maintained in a safe condition and inspected regularly. Replace defective tools and tag-out damaged equipment.

2. Do not modify tools. Safety guards must NOT be removed, restrained, or bypassed.

3. Use tools for designed purposes only. Get the right tool for the job.

4. Do not remove guards and/or handles from grinders. Do not operate a grinder without proper training.

5. Be sure power tools are turned off before connecting to an energy source. De-energize equipment before servicing or changing components.

6. If there is any potential for fire or explosion, intrinsically safe tools must be used. Air operated tools should be chosen and compressed gas is never used to operate these tools.

7. With the exception of UL double-insulated tools, the frames of portable electric tools must be grounded, either through a 3-way plug or separate wire. Tools used in or near wet locations must be plugged into a ground-fault protection circuit.

8. Never use one wrench as a cheater for a second wrench. Cheaters shall not be used.

9. Never step or jump on wrenches when additional force is required. Get a larger tool.

10. An air hose is not to be used to blow particles off clothing, hair or skin.

11. Do not use tools, unless a pry bar, as a pry bar.

12. Do not throw tools.

13. Guards or shields must be in place and operable at all times while tool is being operated.

14. Electric cords to power tools must be in good condition and should not be run through door openings or across driveways.

15. Air hoses used for tools should be secured with devices to prevent accidental separation. Hoses under pressure will be secured at end connections to prevent separation or whipping.

16. Do not operate power tools unless you are properly trained.

17. Be aware of twisting/kick-out forces with certain tools. Maintain solid footing and remain alert.

18. Employees will be issued and are required to wear any PPE that is considered necessary to protect them from the potential hazards of the tool or environment (i.e. falling, flying, abrasive, or splashing objects, or harmful dust, fumes, mists, vapors or gases). Compliance is mandatory.

19. Carry tools in appropriate pouches and/or sheaths.

20. Use proper securing devices to hold material in place.

21. Do not place sharp or pointed tools in pockets.

22. Hold and carry tools by designated handles.

23. De-energize all power tools when moving or repairing.

24. Keep cutting tools sharp and lubricated.

25. Do not wear loose jewelry or clothing around rotating equipment. Tie long hair back.

26. During work operations, idle tools will be placed in secure spots where they do not become a tripping or falling hazard.

27. Tools will be secured in the rear of vehicle where they do not become a projectile during vehicle collisions.

28. Tools will not be stored in the rear of vehicles where they obstruct the drivers' vision.

29. Report damaged tools for appropriate repair. Do not use broken tools.

30. Handles will not be taped or painted.

31. Any tool which is not in compliance with any applicable requirement of this program is prohibited and must be identified as unsafe by tagging and/or locking the controls to render it inoperable. If this is not practical or feasible, the tool must be physically removed from its place of operation.

Hazard Identification and Risk Assessment

Hazard identification and risk assessment are vital components of every safe work environment. Management has implemented a Job Safety Analysis (JSA) program to prevent accidents by identifying hazards, and then developing corrective action to eliminate, or reduce the hazards, both existing and potential, to an acceptable level before initiating work.

The goal is to:

1. Identify the potential hazards
2. Identify appropriate methods to reduce or eliminate the hazards
3. Fulfill requirements of the Customer
4. Create a PPE Hazard Assessment

JSAs must be completed before each job (routine or non-routine) is begun, and whenever a new process is introduced, a procedure is modified, or a change in products, services or operation is implemented. If the scope of the job changes, a new JSA is required, and all affected employees must participate in the completion of the new document.

Every affected employee and subcontractor employee is required to participate in the completion of the JSA, and all are expected to sign the document once it is completed. When the client does not provide a JSA form to complete, Jim Berry Contractors will make theirs available and request that the client representative(s) participate.

Work permits (i.e. Hot Work Permits, Confined Space Entry, and Lockout/Tagout) may accompany the JSA.

Who should participate in filling out a JSA?

1. Job Foreman should lead the JSA team
2. Gang Pusher/Supervisor
3. Employees who are experienced in performing the job
4. Technical experts (mechanics, engineers, etc.)
5. Customer representatives
6. Personnel with no experience in performing the job (often bring unique insight)
7. All other affected employees

When this process is executed properly, *all* employees will have something constructive to learn and contribute. Blank JSA forms are available in the office. Jim Berry Contractors employees will be trained on JSA procedures during New Employee Orientation.

Hazard Identification and Mitigation

A JSA is one of the primary means of ensuring that employees return home the way that they came to work. It is a fundamental belief of this organization that all accidents are avoidable.

Pursuant to this goal and belief, all employees must participate in the daily completion of JSAs in order to assist in the identification and mitigation of existing and potential hazards.

A JSA is designed to stimulate discussion between the employees that will ultimately flush out the existing and potential hazards that are either present on the jobsite or applicable to the job being performed. Once identified, hazards must be minimized or eliminated through engineering controls, work practices, or, as a last resort, personal protective equipment (PPE). Whenever possible, engineering controls will be utilized to eliminate the identified hazards. Some examples of engineering controls are:

1. Exhaust and/or Mechanical Ventilation
2. Enclosure/Encapsulation
3. Substitution of Materials
4. Component Replacement
5. Sound Barriers
6. Process or Equipment Modification (i.e. using wet-blasting or vacuum blasting to eliminate hazardous dust)
7. Isolation

It is imperative that corrective measures be documented, and an additional hazard assessment be executed once the corrective measures have been taken in order to ensure that the hazard has been eliminated, and no additional hazards have been created.

If engineering controls and work practices cannot sufficiently minimize or eliminate the hazards that were identified, then PPE must be utilized. Employees must be properly trained in the hazard identification process and on the use, maintenance, and limitations of the PPE they have been provided before they will be authorized to work within the affected jobsite, or perform the applicable task. It is also necessary to make certain that the selected PPE will adequately minimize or eliminate the applicable hazard; for example, if a respirator must be used, it is critical that a competent person be consulted to ensure that the proper respirator is selected and used.

Once identified, hazards must be categorized and prioritized to properly address the most serious first. If an atmospheric hazard, for example, is identified, it may be necessary to evacuate the non-essential personnel and call for additional help to eliminate the hazard. In other situations, a jobsite may need to be isolated by barriers, and the workforce assigned accordingly before any work can be performed. In these situations, it is essential that the appropriate hazards be addressed in order of significance and severity to minimize the affected employees' exposure to the identified hazard.

Documentation mandated by this program must be maintained for at least 6 months, and dependent on the hazards identified, retention requirements may be extended.

It is the responsibility of the Safety Coordinator to ensure that this program is implemented and managed properly.

Hazard Communication “Right to Know”/Chemical Handling

Policy

All Jim Berry Contractors work locations shall fully comply with the Federal Occupational Safety and Health Administration (OSHA) Hazardous Communication Standard, 29 CFR 1910.1200 "RIGHT-TO-KNOW-LAW".

General Requirements

As of November 25, 1985, chemical manufacturers, importers, and distributors are required to label shipping containers of physical and/or health hazardous chemicals, and to provide material safety data sheets (MSDS) to manufacturing purchases of these chemicals. The MSDS is a form that provided more detailed information about a substance than the attached label contains.

The requirements are as follows:

- Jim Berry Contractors must ensure that each container of hazardous chemicals in the workplace is labeled with appropriate physical and health warning information.

- Jim Berry Contractors must maintain copies of the material safe data sheets (MSDS) for each hazardous chemical in the workplace, and ensure that they (MSDS) are readily accessible to all employees at all times.

- Jim Berry Contractors must provide employees with information and training on hazardous chemicals in their work area at the time of their initial assignment and whenever a new hazardous substance is introduced into their work area.

- Jim Berry Contractors must develop and implement a written hazard communication program for their workplace.

- Jim Berry Contractors should have specific methods for providing other employer information concerning hazardous chemicals at job sites. Jim Berry Contractors should have methods of providing MSDS sheets, methods of precautionary measures to be taken and methods of providing information on labeling systems. The program shall be made available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director in accordance with requirements of 29 CFR 1910.1020. Where employees must travel between work places, the written program may be kept at a primary job site. If there is no primary, then the program should be sent with the employees.

Objective

The objective of the Hazard Communication (HAZCOM) program is to insure that all employees are trained and made aware of all hazardous substances with which they work. The program is also to acquaint them with the danger to their health and safety from the potential hazards of exposure to such substances in the workplace.

Purpose

The purpose of HAZCOM is to develop uniform standards in the receipt, labeling, marking, handling, storage, use and protective measures in accordance with good safety practices, OSHA regulations and state requirements of all hazardous chemicals purchases or shipped off the site.

Coordination

The Safety Director has the overall responsibility for coordinating the hazard communication program. There are seven (7) key elements of a hazard communication program:

1. A written program.

2. A list of hazardous chemicals used.

3. **Hazardous chemical labeling**: It is our policy that each container of hazardous chemicals on a job site is properly labeled. The labels will list:

    a. The contents of the container.
    b. Appropriate hazard warnings.
    c. The name and address of the manufacturer, importer or other responsible party.

    NOTE: No one is authorized to remove or deface the labels on containers.

    To further ensure that employees are aware of the chemical hazards of materials used in the work area, it is our policy to label all secondary containers. Secondary containers will be labeled with an extra copy of the manufacturer's label or SAMPLE label that lists the container's contents and appropriate hazard warnings. The Safety Director has the responsibility to see that all containers of hazardous chemicals are properly labeled. Labels shall be legible, in English. However, for non-English speaking employees, information may be presented in their language as well. Hazard warnings can include words, pictures, or symbols, in any combination. Some examples of labeling systems might include NFPA, DOT, and HMIS.

4. **Materials Safety Data Sheets** (MSDSs): A designated person will procure, post, and maintain the Material Safety Data Sheets for hazardous chemicals present on all job sites. MSDS's must be available in each work area at all times, especially in emergency situations, to all employees at the job site, their representatives, and the authorities.

5. **Employee Training**: Employees are to attend a training session on hazardous chemicals in their work area at the time of their initial work assignment. The training session will cover the following:

    - An overview of the Hazard Communication requirements.
    - A review of the chemicals presents in their workplace operations.
    - The location and availability of a written Hazard Communication program, a list of hazardous chemicals and Material Safety Data Sheets.
    - Methods and observation techniques that may be used to detect the presence or release of hazardous chemicals in the work area.
    - The physical hazards of the chemicals in the work area, including signs and symptoms of exposure and any medical condition known to be aggravated by exposure to the chemical.
    - How to lessen or prevent exposure to hazardous workplace chemicals by using good work practices, personal protective equipment, etc.
    - Emergency procedures to follow if employees are exposed to hazardous chemicals.
    - An explanation of the hazard communication program, including how to read labels and Material Safety Data Sheets to obtain appropriate hazard information.

    When a new type of product is introduced into a work area or the chemical composition of a product changes, the Safety Director will review the above items as they are related to the new chemicals and relay this information to all affected employees.

    A record of all training, including the name of the trainer, the date of training and the material covered, is to be kept for each employee inside of their permanent file. Records must be made available to the employee, his/her representative and the appropriate authorities.

6. **Non-Routine Tasks**: Employees are required periodically to perform non-routine tasks. Prior to starting work on such projects, each affected employee will be informed by the jobsite supervisor about hazards to which they may be exposed and appropriate protective and safety measures.

7. **Informing Other Employers**: To ensure that the employees of other contractors have access to information on the hazardous chemicals, it is the responsibility of Safety Director to provide others with the following information:

    - Where the MSDSs are available.
    - The name and location of the hazardous chemicals to which their employees may be exposed and any appropriate protective measures required to minimize their exposure.

An explanation of the labeling system used at the job-site. Each new chemical brought onto a job-site must be accompanied by the appropriate hazard information.

HAZWOPER/Emergency Response

Objective

The objective of this program is to ensure that any Jim Berry Contractors employee that is assigned to a job site that contains or could potentially contain hazardous materials knows how to respond in the event of a release, or substantial release threat, of hazardous substances.

Jim Berry Contractors employees will never be responsible for the containment or cleanup of hazardous materials without the appropriate training. Supervisors and Gang Pushers will receive Level 2 First Responder Operations training in order to contain a release, slow the spread of hazardous materials and prevent exposure. All employees assigned to a jobsite that contains or could potentially contain hazardous materials will be trained at Level 1 (First Responder Awareness)—observation, reporting and evacuation. All affected employees will receive additional training to insure a comprehensive understanding of the written Emergency Response Plan, so that every employee on the job site is capable of notifying the appropriate personnel before evacuating. No employee will be subjected to the hazard of any material without the proper training.

Emergency Response Plan—General Guidelines

A written site-specific Emergency Response Plan will be in place, and employees will be trained on and understand it before any work will commence. The site-specific plan will include, but not be limited to, the following areas:

- Pre-emergency planning and coordination with outside responding agencies (i.e. fire, EMS, and law enforcement, etc.).
- Personnel roles, lines of authority and lines of communication.
- Emergency recognition and prevention (what constitutes an emergency and how to prevent the occurrence).
- Safe distances and places of refuge.
- Site security and control.
- Evacuation routes and procedures.
- Decontamination procedures.
- Emergency medical treatment and first aid.
- Emergency alerts and response.
- Personal protective equipment and emergency equipment.
- Engineering controls (i.e. enclosure/isolation, and exhaust/mechanical ventilation, etc.)
- Air monitoring
- Critique of response procedures and follow-up

Employees who exhibit signs or symptoms which may have resulted from exposure to hazardous substances during the course of an emergency shall be provided with medical consultation. In addition, any employees who have been or could have been exposed to a hazardous material during the emergency response will be subject to medical surveillance for one year following the incident to ensure that no signs or symptoms develop.

NOTE: The plan must be in writing, implemented prior to the commencement of any work, and available for inspection by employees, their representatives and OSHA; no fewer than two copies are to be present on all affected job sites.

Training

Hazwoper includes five levels of training and expertise. The levels are differentiated by the amount of expertise and on-site responsibilities delegated to each. The name, responsibilities and required training for each are included in the following list:

1. Level 1: **First Responder Awareness**

   This level trains employees to be aware of any release of hazardous substances and to alert the response team. This includes observation, reporting and evacuation training. Between 4 and 8 hours of training are acceptable at this level.

2. Level 2: **First Responder Operations**

   This defensive training applies to employees who are not authorized to stop a release. This level trains them to contain a release, slow the spread of hazardous material, and prevent exposure. A minimum of 8 hours of training is required. Level 2 responders must know everything that Level 1 personnel know and may be required to take the complete 24-hour Hazwoper program. Additionally, they must know how to select and use personal protective equipment, how to confine and control a simple spill, and basic decontamination procedures.

3. Level 3: **Hazardous Materials Technician**

   This level teaches employees how to stop the release of hazardous material by patching, plugging, or repairing the vessel or container that is leaking. Training must be at least 24 hours in length. In addition to covering the same topics as Level 2, the hazardous material technicians must be trained to:

   - Implement the company's emergency response plan;
   - Identify, classify and verify specific and/or unknown substances with the use of special instruments

- Perform advanced containment operations, and
- Understand decontamination and toxicology and be able to identify personnel who exhibit exposure symptoms.
- Function within an assigned role in the ICS

This training level often includes at least one day of field experience.

4. Level 4: **Hazardous Materials Specialist**

   This specialist assists the technician in containing the spill and provides expertise in hazardous substances to be contained. The specialist also acts as the on-site liaison with government authorities. At this level, OSHA requires at least 24 hours of training. However, it is not uncommon for employees to receive 40 hours of instruction.

   Instruction for the hazardous material specialist begins with Level 2 and 3 training. Specialists are trained to implement the company's emergency response plan, as well as state and local plans, and, if necessary, develop a site safety and control plan. Specialists must have an in-depth knowledge of the hazardous materials on-site, hazard and risk assessment techniques, and hazardous material disposal.

   Company employees who are trained to Level 4 will receive the additional training necessary to educate them on the PPE necessary to protect all persons involved in the control and cleanup of the hazard; training should include chemical protective clothing.

5. Level 5: **On-Site Incident Commander**

   This person is in charge of the entire response, cleanup and disposal operation and OSHA requires a minimum of 24 hours of training. Many employers provide up to 40 hours of training. Training covers the following topics:

   - The company's Incident Command System (ICS);
   - Emergency response plan;
   - Local, state, and federal emergency response plans (including all regulations)
   - Personal protective equipment; and
   - Decontamination of responders and equipment.

The "senior official" at an emergency response is the most senior official on the site who is responsible for controlling operations. The senior officer on the first piece of responding emergency apparatus assumes the role of "senior official," but it is subsequently passed up the line of authority, that has been previously established, as more senior officials arrive on

the scene. Employees or agents of the operator will always take seniority over equally certified Jim Berry Contractors employees.

At each level, training must be documented and employees certified prior to their arrival at the job site. Employees must pass a written exam to demonstrate their proficiency following their initial training and after each annual refresher course. The training and testing of an employee must be based on his/her duties and functions.

If an emergency response team is obligated, under a mutual aid agreement, to respond to an off-site incident, the 24-hour emergency training and response procedures are valid during the emergency period only (i.e. rescue, containment and control, etc.). However, if an emergency response team is engaged in the cleanup of a hazardous waste site, training must comply with all regulations covering hazardous waste site remediation (*29 CFR 1910.120*(a)(l)(i)) and the full 40-hour training is required.

All training is to be administered by instructors that have been certified to teach the material, either through training or academic credentials, and have demonstrated their competency.

Personal Protective Equipment (PPE)

The individual in charge of the ICS is ultimately responsible for assuring that all affected individuals are equipped with the appropriate PPE for the hazards present. The Incident Commander shall assure that protective clothing protects the head, body, and extremities, and consists of at least the following components: foot and leg protection; hand protection; body protection; eye, face and head protection.

If there is a risk of exposure to an inhalation hazard, all affected employees will be equipped with and required to wear a positive pressure self-contained breathing apparatus (SCBA). SCBAs shall be worn until the Incident Commander determines, through the use of air monitoring, that a decreased level of respiratory protection will not result in hazardous exposures to employees.

In the event that skilled support personnel are needed to contain and/or eliminate a hazard, they shall receive an initial briefing that will include instruction in the wearing of appropriate PPE, what chemical hazards are involved, and what duties are to be performed. In addition, the safety and health precautions implemented for the employees on-site, including but not limited to PPE, shall be extended to these skilled personnel.

Employees who work with and are trained on the hazards of specific hazardous substances that may be called upon to offer technical advice to the individual in charge of the ICS shall receive training or demonstrate competency in the area of their specialization annually.

Personal Protective Equipment will be provided at no cost to the employee.

Control and Cleanup

All Jim Berry Contractors employees assigned to a job site that contains or could potentially contain hazardous materials will be trained in accordance with the First Responder Awareness criterion. Upon assignment, employees will receive additional training to instruct them on the site-specific emergency response plan, including the names and numbers of the individuals who need to be contacted immediately in the event of an emergency (i.e. the on-site first responders, and the responding agencies with which emergency protocols have been established, etc.), the evacuation routes and procedures, and safe distances and places of refuge, etc.

There will be at least two available Level 2 technicians on any job site that Jim Berry Contractors employees are assigned to; this is to ensure compliance with 29 CFR 1910.120, which requires a buddy system, to slow and control a hazardous spill. In addition, a Level 5 Incident Commander will be available to implement the emergency response plan.

Jim Berry Contractors employees will work within the scope of their training to assist the authorities delegated by the chain-of-command.

Decontamination

A decontamination plan will be established for any applicable job site to which Jim Berry Contractors employees are assigned. The decontamination plan should:

- Determine the number and layout of required stations
- Determine the equipment needed
- Determine appropriate methods
- Establish procedures to prevent contamination of clean areas
- Establish methods and procedures to minimize worker contact with contaminants during removal of personal protective equipment
- Establish methods for disposing of clothing and equipment that are completely decontaminated

Although it is the objective of this program to prevent the need for decontamination of any employees, Jim Berry Contractors employees will be trained on the procedures to follow should they ever become contaminated.

Records

For each employee, all training and medical surveillance records, including the methods used for training, will be maintained for the duration of employment plus an additional 12 months thereafter.

Post-Emergency Response

Jim Berry Contractors does not have the equipment or facilities to remove and properly dispose of hazardous substances. If the incident commander determines it is necessary to remove hazardous substances, health hazards and materials contaminated with them (such as contaminated soil or other elements of the natural environment) from the job site, a sub-contractor must be contracted to remove the affected material.

Heavy Metals, Lead, Cadmium, and Hexavalent Chromium

Training

All employees who are at risk of exposure to heavy metals, lead, cadmium, and/or hexavalent chromium (chromium) will be required to complete the appropriate training at time of hire, during orientation, or prior to assignment on a potentially hazardous job site. Training records, including the name of the employee, the signature of the trainer and the date of training will be maintained and updated annually with the employee's certification renewal. Training and renewal participation is mandatory. All Jim Berry Contractors employees must demonstrate, through either an oral or written assessment, that they:

- Understand the hazards associated with working with lead, cadmium, chromium or other heavy metals.
- Know proper procedures for working with these substances.
- Know where the material could be present, and under what circumstances their risk of exposure is heightened.
- Know hygiene and decontamination procedures.
- Know personal protective equipment requirements.
- Be familiar with control methods and medical surveillance.
- Be familiar with all heavy metal standards to include the lead standards.

Regulated Areas

Per the lead standard and information provided by Jim Berry Contractors clients, certain work areas may contain heavy concentrations of heavy metals that could cause medical problems if they enter the body. All such areas are considered Regulated Areas. Jim Berry Contractors must list possible locations of lead containing materials such as leaded paints, leaded solders, pipes, batteries, circuit boards, cathode ray tubes, leaded glass, and demolition/salvage materials.

Due to the elevated risk of heavy metal exposure, Jim Berry Contractors will evaluate the need to establish a Regulated Area whenever the following activities are being performed (the evaluation, including air monitoring, must be documented and updated every 6 months):

- Electrical grounding with cadmium welding
- Cutting, brazing, burning, grinding, or welding on surfaces that are painted with lead/cadmium-containing paints
- Cutting and welding cadmium-plated steel
- Brazing or welding with cadmium alloys
- Fusing of reinforced steel by cadmium welding
- Maintaining or retrofitting cadmium-coated equipment

Regulated Areas must:

- Be set apart from the rest of the workplace in a way that establishes and alerts employees to the boundaries of the area
- Be entered ONLY by authorized persons
- Be entered ONLY by persons using proper respirators and other PPE
- Employees must refrain from eating, drinking, smoking chewing tobacco or gum and applying cosmetics in such areas. Employees must not carry, store, or use products associated with such activities in these areas.

- Have **warning signs** containing the following data must be posted at all entrances:

    a. Metal/material contaminating area
    b. Hazard associated (i.e. cancer, lung/kidney disease, etc.)
    c. "AUTHORIZED PERSONNEL ONLY"
    d. "RESPIRATORS REQUIRED IN THIS AREA"

These areas become regulated by air monitoring or other means of testing and subsequent labeling of area.

These areas are restricted and require special procedures to be followed to gain entrance to include, but not limited to, training, proper respiratory protection, and emergency procedures.

Site-specific procedures will be developed (and included in the site specific training outlined above) and implemented to protect employees from exposure to cadmium/lead/chromium while maintenance is performed on the ventilation systems and/or while the filters are changed.

All dust and debris generated inside of the regulated area must be contained and disposed of properly. Surfaces must be cleaned regularly to prevent contaminant accumulation, and equipment such as vacuums with HEPA filters, dry or wet sweeping, shoveling or other methods to minimize exposure should be used to clean the area.

Signs and Warnings

Areas that have been declared hazardous by clients or by testing will be labeled such with signs. These signs will be of quality and size to be read by any person that may enter the area and subsequently be affected by that work area. The information required to be on the sign is listed above—see "Regulated Areas." Appropriate work practices should be followed to ensure the lead containing materials are not disturbed. **Containers that contain heavy metals will be labeled as such.**

All signage will state what heavy metals are present, the fact that these metals are poisonous, and the fact that no eating, drinking, or tobacco products are allowed within such area. Also, if respiratory protection is required, this will be stated on the sign. The signs will not be removed or defaced.

Both employees and visitors will obey all signs. Visitors will be accompanied by a client employee (or Jim Berry Contractors employee if necessary), and the hazards will be communicated to the visitor.

Nature of the Hazard

Jim Berry Contractors will educate each employee about the hazards associated with the substances they will encounter. Jim Berry Contractors relies on its client to disclose all known hazard present at the client facilities. However, Jim Berry Contractors will not work in situations where there is daily exposure to hazardous heavy metals. This training will be conducted and all actions taken before employees are exposed. General hazards associated with lead, cadmium, chromium and heavy metals and the means by which to protect employees will be conducted in training annually.

Employees shall be informed of Appendices A & B of the lead regulation. All affected employees will be made aware of the potentially adverse effects of lead. Common symptoms of acute lead poisoning are loss of appetite, nausea, vomiting, stomach cramps, constipation, fatigue, headache, joint or muscle aches and anemia. Long term (chronic) overexposure to lead may result in severe damage to the blood-forming, nervous, urinary, and reproductive systems. Likewise, all affected employees will be made aware of the specific hazards associated with cadmium and chromium, including but not limited to, cancer, and lung and kidney disease.

All affected employees are required to attend all heavy metals training programs. The training shall be provided prior to the time of initial job assignment, or placement into hazardous situations. All employees will be informed of the specific nature of the operations that could result in exposure to lead or other heavy metals above the action level. Per Jim Berry Contractors Respiratory Policy, air monitoring data, a detailed schedule for implementation, a work practice program, and a written plan for emergency situations will be trained upon before entering the job site. Furthermore, employees will be informed of any engineering controls that can prevent any contact with hazards.

Exposure

No Jim Berry Contractors employee will be exposed to lead, chromium or cadmium at concentrations greater than the PEL: the PEL for lead is fifty micrograms per cubic meter of air averaged over an 8-hour period, and the PEL for chromium and cadmium is 5 ug/m(3) calculated as an 8-hr TWA.

Jim Berry Contractors will follow the **work practices** listed in "Regulated Areas" to minimize exposure—i.e. no eating, drinking, tobacco or cosmetics in regulated areas. If necessary, **engineering controls** will be implemented to minimize employee exposure and to ensure that no employee is exposed to more than the permissible limit for more than 30 days per year. Potential engineering controls may include, but not be limited to, the following:

- Exhaust and/or Mechanical Ventilation—these systems require testing before use to insure effective operation

- Enclosure/Encapsulation
- Substitution of materials (if applicable)
- Component Replacement (if applicable)
- Process/Equipment modification (i.e. altering abrasive blasting techniques to minimize dust—using wet-blasting or vacuum blasting, for example)
- Isolation

Monitoring Program and Requirements

Based on client reports, Jim Berry Contractors will conduct air monitoring and operate according to the results of the air monitoring, or it will operate per the results of its client's testing. If the results of this monitoring show that the heavy metal content is above the action level, then per that specific heavy metal engineering procedure protocol, actions will be taken to reduce the level to a safe one—see "Exposure" above. Respirators must be used when engineering controls and work practices cannot reduce employee exposure, during work operations where engineering controls and work practices are not feasible, and emergencies. If engineering and work practices do not reduce the levels, then the proper personal protective equipment, to include appropriate respirators, will be used. **If these controls are not feasible, then Jim Berry Contractors will not do the work.**

Affected areas must be monitored on a regular basis (at least every 6 months) while the measurements are above the action level. The employer must continue monitoring the affected area until two consecutive measurements, taken at least 7 days apart, are below the action level.

Jim Berry Contractors will disclose the results of the monitoring to all affected employees within 15 working days after the receipt of the results. The results of all monitoring will be posted at the jobsite in a location that is readily visible and accessible to all affected employees, and each will notified in writing if the results exceed the action level. If the permissible exposure limit was exceeded, each affected employee will be notified in writing and will be provided with the details of the corrective action the employer has taken to reduce the exposure to or below the permissible exposure limit, including engineering controls, and PPE requirements, etc.

Compliance with Written Site-Specific Plans

All employees will comply with the written site-specific plans of each client. All personnel will be trained and medically tested to work within the confines of the plan. The written program will be reviewed and updated at least every 6 months to reflect significant changes in Jim Berry Contractors compliance status.

Actions that Could Cause Exposure

Per Appendixes A and B, any way that lead may enter the body could be harmful. Other harmful metals to include cadmium and chromium require personal protection equipment as well and proper hygiene practices.
Cutting, welding, grinding, eating around, drinking, smoking around, chewing tobacco around, breathing around, and other forms of ingestion or inhalation is not allowed.

Medical Surveillance Program

Jim Berry Contractors currently does no medical surveillance of employees because the company does not work in these environments. When Jim Berry Contractors does work in these environments, medical surveillance, in accordance with the heavy metal hazards, will be conducted.

Employees who, for 30 days or more per year, perform any task, operation or job for which Regulated Areas are mandated by Jim Berry Contractors are covered by the medical surveillance provisions. Medical examinations and procedures shall be performed by or under the supervision of a licensed physician without cost to the employee. With lead, Appendices A and B will be adhered to.

Blood sampling & monitoring should be conducted every 6 months until two consecutive blood samples & analysis are acceptable. The sampling & monitoring should be performed at least monthly during the removal period. If biological monitoring results are abnormal, Jim Berry Contractors will reassess all affected employee's exposures within 30 days, and employees should be notified in writing within five days when lead levels are not acceptable.

Employees will be removed from jobs with exposure to chromium, cadmium or lead at or above the action level on each occasion that a physician documents that the employee should be removed from chromium, cadmium or lead exposure, or in cases where the employee's biological monitoring results are so high as to mandate medical removal. The employees may return back to work when the enclosure breach is repaired or an initial exposure assessment is performed. A physician may require medical removal on the basis of biological monitoring results, evidence of illness, inability to wear a respirator, or any other reason deemed medically sufficient. If an employee's removal is due to his/her inability to wear a respirator, he/she can be reassigned to a job at which the exposure to lead/cadmium/chromium is below the PEL.

If an employee is temporarily medically removed from a job for reasons related to cadmium, chromium, or lead exposure, the employee's normal earnings, seniority, and employee rights will be unaffected for a maximum of 18 months (Medical Removal Protection benefits).

Jim Berry Contractors will maintain all exposure and medical surveillance records, and will make the records available to the employee and his representative.

Personal Protective Equipment

Jim Berry Contractors will provide, at no cost to the employee, all necessary PPE to employees based on atmosphere and work area monitoring, as well as client input. NIOSH-certified powered, air purifying respirators (PAPRs) will be provided. Each employee will be trained in the proper fit, usage, and limitations of his/her PPE, including respirators.
Special PPE to include protective clothing will be issued and proper cleaning provided. Protective clothing will be replaced at least weekly and shall be clean, laundered, properly disposed of and repaired or replaced as necessary.

Employees will be required to wear provided protective equipment if the work area requires such protection. Gloves, hats, vented goggles, shoes or disposable shoe covers shall be provided.

Emergency Situations and Decontamination Areas

A job-specific Emergency plan is to be developed, documented and implemented prior to any work being done. While the plan is site-specific, it will include provisions for the use of appropriate respirators and personal protective equipment (PPE), and a mandatory evacuation of all employees who are not essential to resolving the situation. All normal operations will stop until the emergency situation is corrected. All employees assigned to the job-site are to be trained on and receive a copy of the emergency plan before they begin working.

If the exposure limits exceed the PEL, Jim Berry Contractors will provide facilities to accommodate the needs of its employees, including lunch and changing rooms, decontamination and hygiene facilities, etc. Hygiene facilities will prevent cross-contamination and provide washing facilities for employees. Workers must wash their hands and face or any other potentially exposed skin before eating, drinking, or smoking.

NOTE: It is the responsibility of the Safety Administrator to implement this program, and the responsibility of the job supervisors to ensure that the program is executed in the field. A copy of this program will be kept on site for examination and/or copying by affected employees, their representatives, the Assistant Secretary and the Director.

Housekeeping & General Waste Management

Good housekeeping must be maintained to assure the safety of all Jim Berry Contractors employees. The more aware employees are of hazards, the safer the workplace will be. Good housekeeping will prevent injuries, cultivate to a safer work place, and promote a more efficient jobsite.

- Maintain all work, lunch, and break areas in a clean and orderly manner.

- Work areas, stairways, walkways, etc. must be kept clear of portable tools, materials, equipment, and other trip hazards. Return tools and other materials to their appropriate storage location, and clean up messes periodically as you work to maintain tidy work spaces.

- The employer must estimate the waste that will be generated **prior** to work being performed so that the need for containers and waste removal, if necessary, can be determined.

- Employees must be instructed on the proper disposal method of wastes, whether they be hazardous or not. This may include general instruction on disposal of non-hazardous wastes or scrap materials.

- The contractor must ensure the owner is aware of whether wastes and scrap materials will be taken off site by the contractor or will be disposed of on the owner's site.

- Provide adequate space for tools, supplies, and material storage. Everything needs a place.

- Electrical cords are not to be placed across walkways. Secure cords to prevent tripping hazards. All unused electric cords, welding leads, etc. shall be rolled up and placed out of the walking path of any workers.

- Combustible scrap, leftover materials and debris should be removed from work area at regular intervals.

- Waste materials should be properly stored and handled to minimize the potential for a spill or impact to the environment. During outdoor activities, receptacles must be covered to prevent dispersion of waste materials and to control the potential for run-off.

- Proper waste receptacles must be provided for trash and materials that may be reused or recycled during a project.

- Nails, staples, and wires protruding from boards, boxes, shipping containers, etc. must be removed or bent down immediately.

- Provided containers must be used. Deliberate and willful scattering of trash will not be tolerated.

- Any and all work areas must be cleaned before the job can be accepted as being complete.

- Washrooms are provided for personal needs and must be used for these purposes. They are to be kept clean and orderly at all times.

- Electrical cords are not to be placed across walkways. Secure cords to prevent tripping hazard.

- All spills, no matter the substance, should be cleaned up immediately and disposed of properly. Spills may cause slips and falls. If a spill occurs, please protect yourself and others by cleaning it up.

- In order to work efficiently, the work place must be clean and orderly.

- Keep tools out of aisles and returned to their proper storage place. You can prevent a serious accident by picking up tripping hazards.

- Provide adequate space for temporary storage of tools, supplies, and materials during processing.

- Containers shall be provided for collection and separation of all refuse. Covers shall be provided on containers used for flammable or harmful substances.

- Proper segregation of waste materials should be practiced to ensure opportunities for reuse or recycling.

- Store oily rags in approved containers to prevent spontaneous combustion and/or exposure to ignition sources.

- Throw all trash and scrap in the proper containers.

- It is the responsibility of each employee to keep his/her assigned area as clean as possible. Good housekeeping shall be maintained on a shift-to-shift basis.

Hydrogen Sulfide (H_2S)

Jim Berry Contractors employees may be exposed to various chemicals or products in the workplace. All Jim Berry Contractors employees shall be aware of the hazards posed by chemicals and shall be protected from any harm potentially caused by these hazards. Material Safety Data Sheets will be referenced for hazards and guidelines adhered to.

Characteristics of Hydrogen Sulfide

Hydrogen Sulfide is a colorless gas at atmospheric temperature and pressure. It has a foul odor, comparable to rotten eggs, in small concentrations but causes paralysis of the olfactory nerve within 60 seconds in higher concentrations. The paralytic effect of Hydrogen Sulfide on the sense of smell is a significant hazard. The odor threshold for H_2S is 0.13 parts per million (PPM). NOTE: The Permissible Exposure Limit (PEL) for H_2S in any 8-hr work shift of a 40-hr work week shall not exceed 10 PPM, and the Short Term Exposure Level (STEL) for H_2S is 10 PPM for 15 minutes, a maximum of 4 times in an 8-hr work day with at least one hour between each exposure. This STEL can be used for the TLV/TWA.

Additional Characteristics:

- Hydrogen Sulfide is approximately 20% heavier than air.
- H_2S forms an explosive mixture with air between 4.3% and 46% by volume concentration.
- H_2S is soluble in water: 2.9 volumes of gas per volume of water at 20° C.
  NOTE: Solubility decreases with an increase in temperature; consequently, the H_2S will be released from the oil or water.
- The IDLH (Immediately Dangerous to Life and Health) for H_2S is 300 PPM.
- The ignition temperature for Hydrogen Sulfide is 500° F.
- Sulfur Dioxide (SO_2) is a toxic byproduct of H_2S; SO_2 is created during the burning/flaring of H_2S. Sulfur Dioxide has a pungent odor and provides ample warning of its presence—the odor threshold is 3 PPM. In high enough concentrations, SO_2 is deadly.

Toxicity (Physiological Response):

10 PPM	Obvious and unpleasant odor; beginning eye irritation. **Permissible Exposure Limit (PEL) of 8 hrs.**
50-100 PPM	Slight conjunctivitis and respiratory tract irritation after 1 hour of exposure
100 PPM	Loss of sense of smell in 3 to 15 mins; altered respiration, coughing, and drowsiness after 15-30 mins followed by throat irritation after 1 hr; symptoms will gradually increase with continued exposure, and death can result within 48 hrs.

200-300 PPM	Quick loss of sense of smell; sting in eyes and throat; respiratory irritation; DEATH within 2 hrs.
300 PPM	Immediately Dangerous to Life or Health (IDLH)
500 PPM	Dizziness; breathing ceases within a few mins; prompt rescue breathing mandatory; SELF-RESCUE IMPOSSIBLE due to loss of muscle control
700 PPM	Quick loss of consciousness
1000 PPM	Immediate loss of consciousness followed by death within minutes

NOTE: There is no evidence that repeated exposures to Hydrogen Sulfide result in accumulative poisoning, but repeated exposures to H2S do appear to cause some increases in susceptibility to the gas.

Potential for Exposure

In most industrial operations, sulfur compounds are undesirable components that have to be removed from the product. There are several possible means by which H_2S can permeate a job site:

1. **Drilling Rigs**
   Some geographical areas are richer in sulfur deposits than others, but there is always a danger of drilling into pockets of gas that will enter the atmosphere. There is always a risk of H_2S escaping through a drilling hole, but other means of escape to consider are:

   a. Recycled Drilling Mud because of the weak soluble properties of H_2S that are addressed above.

   b. Water from Sour Crude Wells (for the same reason)

   c. Blowouts

2. **Tank Gauging and Field Maintenance**

   Work around tanks, pipeline and refining operations carries an inherent risk of exposure to H_2S. Hydrogen Sulfide will utilize the oxygen in CO_2 or water to create carbonic acid and eat through untreated, pitted or otherwise corroded steel. Although the necessary precautions should have already been taken, tank batteries, wells, pipelines and other such premises must be approached and worked in with an attentive regard for corrosion.

Casing, tubing, drill pipe, couplings and the like that are used around hydrogen sulfide should meet the standards as described in NACE STD MR-01-75: Standard material requirements sulfide stress cracking resistant metallic materials for oilfield equipment.

Exposure Prevention—Personal and Area Monitors/Alarms

All areas where there is a potential for exposure to Hydrogen Sulfide must be monitored. Although there are numerous types of monitors available (i.e. electronic, direct reading colorimetric tubes, wet chemistry and lead acetate methods), all monitors used for employee exposure prevention must adhere to the following:

1. All monitors should be portable, weighing no more than 10 lbs.

2. Monitors should provide a direct readout of hydrogen sulfide concentration in parts per million (PPM) by volume.

3. Monitoring equipment should be readily operable by all jobsite personnel.

4. All users should refer to or be trained on the material within the manufacturer's book before use.

5. At least one designated jobsite supervisor must be trained on the proper procedure to calibrate and reset area monitors, and employees that are issued personal monitors must be trained and equipped to calibrate and reset the issued equipment.

6. All portable monitors should contain integrated audible, visual or physical presentation alarms.

7. All monitors should be rugged, but should be protected from extreme conditions (i.e. Water, chemical sprays and abuse).

Only electronic monitors are suitable for standard jobsite safety; the personal and area electronic monitors issued on a job site must alarm when the PEL exceeds 10 PPM.

Safety Precautions and Contingency Plan

All employees are to be trained on the three conditions of H_2S concentration: Green (< 10 PPM), Yellow (10 – 50 PPM), and Red (> 50 PPM). When the Hydrogen Sulfide concentration exceeds 10 PPM (ACGIH) at some area on site, and the well or production stream is still under control, all personnel are notified by the area monitor with an intermittent audible alarm and a yellow flashing light. Upon hearing or seeing the alarm, all non-essential personnel must proceed to the upwind safe-briefing area (to be determined before work commences and modified if necessary to accommodate weather conditions). Remaining essential personnel must wear breathing apparatuses. In the event that the H_2S concentration exceeds 50 PPM on the location, or a loss of well control occurs, personnel are notified by a continuous alarm and a red flashing light.

All personnel that are not involved in the recovery effort must evacuate the location. All persons remaining on the site must wear breathing apparatuses.

NOTE: Before work commences on any job site, a site-specific contingency plan will be established, and ALL employees working on-site must be trained on it.

NOTE: **The only breathing apparatuses authorized for use around Hydrogen Sulfide are NIOSH-certified self-contained breathing apparatuses or an airline respirator with an escape SCBA.**

Ladder Safety

1. Safety climbs that are installed on ladders attached to equipment must be used. Safety climbs have safety belt attachments that allow personnel to climb without detaching their safety belts after each step.

2. Jim Berry Contractors ladders must be maintained in good condition. When portable ladders are used on hard surfaces, they must be equipped with nonskid footing or securely fastened to prevent slipping. The top of the ladder should be secured, or another person should hold the ladder. The base of the ladder should be placed away from the wall by a distance of about one foot for every four feet in height. Ladders will extend three feet past point of contact; if this is not feasible, the ladder must be secured at the top to a rigid support that will not deflect.

3. All permanent ladders must be securely fastened at both top and bottom. Long ladders should also be secured at intermediate points.

4. Jim Berry Contractors ladders should be closely inspected when purchased or installed and re-inspected at least twice a year. Check the condition of the ladder before it is used and correct any defects. The combined weight of the employee and load should not exceed the load limit of the ladder. Remove any oil, grease, or slippery material from the ladder and from the shoes.

5. Wooden and fiberglass ladders must not be painted. Wooden ladders should be coated with clear varnish or shellac or treated with boiled linseed oil.

6. Ladders must not be placed in front of doors that open toward the ladder unless the door is locked or guarded.

7. When climbing or descending a ladder, a person should face the ladder and hold the side rails, not the rungs. Climbers should not carry tools or other encumbrances in their hands. A tool belt or pouch should be used for holding small tools, and a hand line should be used to raise or lower heavy or bulky objects. When a climbing belt is supplied, the person ascending or descending the ladder must use it.

8. When working from a ladder, never extend farther than the arm's length to reach work. When working on a portable ladder, move the ladder to avoid the possibility of an accident.

9. No more than one person should be on a ladder at the same time where possible. If a job requires more than one person, a second ladder or a scaffold should be considered.

10. Never work on an unsecured ladder in windy conditions.

11. A person should not stand on the top two steps or the spreader of a stepladder.

12. A stepladder should not be used as a straight ladder (i.e. used while still folded).

13. It is a good safety practice for someone to hold or steady a stepladder for a person working near its top.

14. Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced, when the ladder is in position for use.

15. Ladders must be placed on a stable and level surface.

All Jim Berry Contractors ladders will be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe operation. Any ladder that is deemed defective by the competent person is to be tagged and removed from the premises.

Portable and fixed ladders with structural defects, such as, but not limited to, broken or missing rungs, cleats, or steps, broken or split rails, corroded components, or other faulty or defective components, shall either be immediately marked in a manner that readily identifies them as defective, or be tagged with "Do Not Use" or similar language, and shall be withdrawn from service until repaired.

When performing electrical work that requires the use of a ladder, use a wooden or approved fiberglass ladder. Metal (aluminum) ladders cannot be used.

When raising a ladder, make sure it will not contact an electrical line.

Extension ladders should properly overlap between sections.

Ladders must not be used as scaffold members or for any purpose for which they are not intended. Do not place ladders on top of boxes, barrels, crates, etc.

Unsecured portable ladders should not be left standing unattended.

Always use an approved ladder or stool to reach articles high above the floor. Never use a swivel chair or other makeshift device to reach high places.

Lifting Equipment and Materials

Introduction

Different types of hoisting and rigging devices and lifting equipment may be used at Jim Berry Contractors for lifting, pulling, and moving equipment. Only qualified individuals shall operate these devices. The safety rules and guidance in this program apply to all operations at Jim Berry Contractors that involve the use of wire rope, slings, chains, and lifting equipment such as cranes and to all Jim Berry Contractors employees and/or supplemental labor who use such devices. The company's Safety Personnel are responsible for the administration and periodic review of this program.

Employee Responsibilities

Supervisors are responsible for:

- Ensuring that employees under their supervision receive the required training and are competent in the use of equipment using wire rope and cable in their areas.
- Providing training for prospective operators in order to prevent property damage and injury.
- Investigation and documentation of injuries caused by improper lifting and incorporation of investigation findings into work procedures to avoid future injuries.
- The recording and reporting of injuries in accordance with OSHA regulations by 29 CFR Part 1904.
- Evaluating trainees using the equipment and competency testing.
- Ensuring the equipment is inspected and tested monthly by a responsible individual and that rigging equipment is inspected monthly as well and prior to use.
- Periodic evaluation of work areas and employees' work techniques to assess the potential for and prevention of injuries.
- Evaluations of new operations to engineer out hazards before work processes are implemented.

Equipment Operators are responsible for:

- Operating lifting and pulling equipment safely
- Conducting functional tests prior to using the equipment
- Selecting and using rigging equipment appropriately
- Selecting the proper sling
- Properly storing all rigging so as to prevent damage
- Determining the sling capacity
- Learning sling configurations
- Identifying and evaluating sling deterioration
- Determining the proper size for slings and components

- Not using manila rope for rigging
- Making sure that shackle pins and shouldered eyebolts are installed in accordance with the manufacturer's recommendations
- Making sure that ordinary (shoulderless) eyebolts are threaded in at least 1.5 times the bolt diameter
- Using safety hoist rings (swivel eyes) as a preferred substitute for eye bolts wherever possible
- Padding sharp edges to protect slings
- Not using slings, eyebolts, shackles or hooks that have been cut, welded or brazed.

Company Safety Personnel are responsible for:

- Performing annual maintenance and inspection of all Jim Berry Contractors equipment, slings, and pickup lines that are not covered by a program with maintenance responsibility.
- Conducting periodic inspections of wire rope, shackles, eyes, sockets, etc.
- Maintaining written records of inspections and tests, and placing copies of all inspections and test results in a file
- Determining when two man lifts must be used when use of lifting equipment is impractical
- Inspecting equipment following modification or extensive repairs
- Conducting training for all equipment having wire rope and cables attached to them
- Periodically verifying monthly test and inspection reports
- Interpreting wire rope and cable safety rules and standards
- Removal of defective slings and cables from service and destroying or disposing of them to prevent inadvertent reuse
- Checking to ensure that all responsible parties are properly storing rigging and related hardware.

Safe Operating Requirements

All workers who use Jim Berry Contractors' equipment shall be deemed competent in its use: authorized employees who have been specifically trained in the operation and safety of the machinery/equipment.

Manual lifting equipment such as dollies, hand trucks, lift-assist devices, jacks, carts, hoists must be provided for employees. Other engineering controls such as conveyors, lift tables, and work station design should be considered. Use of provided equipment by employees must be enforced.

Training

Before manual lifting is performed, a hazard assessment must be completed. The assessment must consider size, bulk, and weight of the object(s), if mechanical lifting equipment is required, if two-man lift is required, whether vision is obscured while carrying and the walking surface and path where the object is to be carried.

Training should include general principles of ergonomics, recognition of hazards and injuries, procedures for reporting hazardous conditions, and methods and procedures for early reporting of injuries. Additionally, job specific training should be given on safe lifting and work practices, hazards, and controls.

General Safety Rules

At the start of each work shift, operators shall do the following steps before using equipment having wire rope slings and/or cables attached to them:

- Visually inspect the wire rope, eyes and sockets as much as possible; in most instances, this will be done at the work site before starting the job.
- Never overload the lifting equipment or rigging—load capacities must be posted.
- Make certain there are no obstructions between the equipment and where the rope is attached.
- Make certain the pickup line is operating smoothly by lifting the equipment up and downward to verify that the line is in the shieve groove.
- Plan and check the travel path to avoid personnel and obstructions.
- Defective cables and slings shall be tagged out of service until properly repaired or disposed of. Disposal will consist of destruction of defective equipment. The inspector shall initiate corrective action by notifying the company Safety Officer.

General Rigging Safety Requirements

Company policy requires a minimum safety factor of 5 to be maintained for wire rope slings. The following types of slings shall be rejected or destroyed:

Wire rope slings with

- Kinking, crushing, bird-caging, or other distortions
- Evidence of heat damage
- Cracks, deformation, or worn end attachments.
- Six randomly broken wires in a single rope lay
- Three broken wires in one strand of rope

Note: Rotation resistant rope has different strand break requirements; therefore, follow the manufacturer's requirements.

Alloy steel chain slings with

- Cracked, bent, or elongated links or components.
- Cracked hooks, shackles, eyebolts, turnbuckles, or other components that are damaged or deformed.

Inspections, Maintenance, and Testing

All tests and inspections shall be conducted in accordance with the manufacturer's recommendations.

Slings shall have appropriate test data when purchased. It is the responsibility of the purchaser to ensure that the appropriate test data is obtained and maintained.
Pickup lines that have been overloaded shall be inspected prior to being returned to service.

Records

Jim Berry Contractors Safety Personnel shall maintain records for all slings, cables, and other rigging equipment.

Rigging Storage

Sun, dirt, and wet conditions will potentially damage rigging equipment. When any lifting equipment is not being used, it shall be stored out of the elements. Rigging can be stored in storage compartments on equipment or designated storage cases, but must be removed from the immediate work area when not in use. Both the equipment operator and rigger are responsible for ensuring that all equipment is stored properly. Equipment will be thoroughly inspected before use. Certification of rigging should include the date of inspection, ID of the rope inspected, and the signature of the person performing the inspection.
All damaged equipment will be made inoperable (destroyed) and removed from the work area.
Failure to properly store rigging will result in employee sanctions.

Personnel Precautions

Personnel:

- Must be in the clear at all times
- Must not walk, stand, or work under suspended loads.
- Each person participating in the operation must
- **BE ALERT!!**
- Watch the crane block, sling and load, and
- Be able to move freely, if necessary.
- **Never ride on a load that is being hoisted.**

Operating Hoisting Equipment

A load must not be left hanging on the hoist any longer than necessary. When possible, use a hoist or crane to lift a heavy load, and always rig the hoist down and secure it after the work is completed.

While operating hoisting equipment, never place a part of the machine or load within fifteen feet, either laterally or vertically, of an energized power line. (See Power Line Restrictions) Never use hoisting equipment for lifting personnel, unless the equipment is certified, designed, and rated for that purpose. Personnel lifts must be accompanied by completing test and trial lifts per ANSI and OSHA standards.

Load Capacity

The manufacturer's maximum load specification for the hoist must be noted on the hoist. All operators of cranes, cherry pickers, and other lifting equipment must know the load capacities of the equipment they are operating; operators are forbidden to exceed the capacities of their equipment. Capacity charts, operating speeds and hazard signs must be posted by the controls so the operator can see them clearly.

Load tests are to be performed by the company Safety Personnel, and the written reports and records of these tests are to be maintained. In addition, written reports are to include the testing procedures used and documentation of any repairs made.

Boom angle indicators must be permanently attached to the boom and functioning properly. Indicators must show the operating angle and corresponding radius.

Never overload the hoist by trying to lift objects that are heavier than the equipment is rated to lift, or by overextending the length of the boom.

Tag Lines

When safe to do so, tag lines must be used to control loads. Before a hook is moved, personnel using tag lines must inspect the lines for knots. Tag lines must not be wrapped around the employee's hand or wrist. The operator, signal person, and load handlers are responsible for ensuring that the load is never over any person.

Outriggers

USE YOUR OUTRIGGERS! Make sure outriggers are on firm timber or steel matting. Outriggers are better than rubber chocks.

Hooks

Hooks on all blocks, including snatch blocks, must have bolts or latches, which must be used each time a load is lifted. The only time bolts or latches are not mandatory is while lowering-in during pipeline construction.

An inspection of all hooks must be performed monthly. A record will be kept of all inspections and will include the date of inspection, the signature of the inspector, and the serial number or other identifier of the hook. Welding is not permitted under any circumstances on any part of the hook.

Handling Cable

Always maintain tension on the cable when reeling it in or out. Leather-palm gloves will be used when handling cables.

Hoist Rotation

For a hoist with **manual rotation**, ensure that the locking mechanism is working properly, and lock the hoist in the desired position before lifting the load.
Caution: The load can easily swing out of control if the hoist is not correctly locked.
Do not attempt to manually rotate a loaded hoist until all personnel are positioned clear of the load, and an adequate number of tag lines are in place.

A hoist with **power rotation** should be used, if available, for jobs that require horizontal positioning of a load after it has been picked up.

Signal Persons

A qualified signal person(s) must work with the hoist or crane operator when

- Personnel assisting with the load are out of the range of the operator's vision
- The moving load is out of the range of the operator's vision, or
- The person is charge of the lift determines it to be necessary.
- The appropriate ANSI standard signals will be used, and illustrations of the signals shall be posted at the job site.

Inspecting Hoisting Equipment

The hoist and its cable must be inspected before each use by a competent person, and if heavy loads are being lifted, then inspections must be performed throughout the day to ensure no problems arise. The employer shall maintain a record of the dates of inspections for each hoisting machine and piece of equipment.

All hooks on hoisting equipment should be visually inspected for cracks and twists before the equipment is used. Lifting equipment of any kind must be inspected before each use by a competent person and a record of the results must be maintained. In addition, a monthly inspection of all hoisting equipment must be performed. An annual inspection must also be performed. A record of all inspections will be kept and will include the date of inspection, the signature of the inspector, and the serial number or other identifier of the equipment. Inspection records will remain with the equipment while it is assigned to a jobsite and forwarded to the administrative offices to be added to the equipment's file. Equipment must not be used if it is not working properly. All wire rope and chains must be taken out of service when wear or corrosion exceeds that allowed by the manufacturer's recommendations.

Inspecting Slings

Slings, fittings, and fastenings should be inspected before each use. Additional inspection must be performed throughout the day to ensure no damage has occurred. Inspections are to be performed by a designated competent person, and should include each sling, the fastenings and attachments. Slings found to be defective must be destroyed.
Wire rope slings should be replaced if any of the following is observed during inspection:

- Ten randomly broken wires in one rope lay or five broken wires in one strand in one lay,
- Wearing or scraping of one-third the original diameter of outside wires
- Kinking, gouging, bird caging, or other damage, or
- Cracked or deformed end attachments.

Using Slings

- Pad or block sharp corners
- Lift and lower loads slowly
- Use the appropriate chart to ensure that slings of adequate capacity are used
- Know how much weight you are lifting.
- Do not use knots to make slings.
- Do not jerk loads.

Applying Wire Rope Clips

- Use the number and spacing of clips recommended in the following table.
- Make sure the U-bolts of all wire ropes are on the short (dead) end of the rope
- Tighten nuts evenly to the manufacturer's recommended torque
- Before lifting, be sure that all clips have been torqued.
- After several lifts, re-torque all clips.

Number and Spacing of U-Blot Wire Rope Clips

Imp. Plow Steel Rope	Drop Forged	Other Material	Min. Spacing
½	3	4	3
5/8	3	4	3 ¾
¾	4	5	4 ½
7/8	4	5	5 ¼
1	5	6	6
1 1/8	6	6	6 ¾
1 ¼	6	7	7 ½
1 3/8	7	7	8 ¼
1 ½	7	8	9

Requirements for Crane Operators/Cherry Picker Operators

Only designated personnel are authorized to use cranes; these persons must be certified through written and practical testing. The crane operator will not operate the crane until the employees assigned to work with the load have explicit instructions and understand their function. The person responsible for the lift and the crane operator must jointly

- Check the load chart (load chart must be accessible to operator inside cab at all times and this chart must be legible)
- Check the boom length against the chart
- Establish the load weight and maximum operating radius, or
- Establish the corresponding minimum boom angle.

For cherry picker operations, transport loads at slow speeds on smooth, level surfaces with the boom over the front and swing lock engaged.

Fire Extinguishers

All hoisting equipment will be equipped with a dry chemical or CO2 fire extinguisher. Personnel will be familiar with Jim Berry Contractors Fire Prevention policy and corresponding fire-related training.

Crane Inspections

Jim Berry Contractors will utilize the specific crane manufacturer's inspection format found within the Operators Manual (including preventative maintenance). These inspections are to be completed pre-operational. Actually, the inspection continues the entire time the crane is operating. These inspections will be turned into Jim Berry Contractors personnel responsible for equipment repairs. All cranes operated will be subject to a third-party inspection and these documents will be kept for record keeping purposes.

The crane will not be operated, and will be tagged "Out of Order" if a deficiency is found that could prevent the safe operation of the crane. The crane operator is considered the qualified person that conducts the pre-operational inspections. Inspections are to be conducted on a monthly basis and are to include all critical components: brakes, crane hooks and ropes (see Wire Rope/Sling Inspection).

Wire Rope/Sling Inspection

All Jim Berry Contractors employees will continually inspect lifting equipment—including running and all other ropes, alloy steel chain, wire rope, metal mesh, natural and synthetic fiber rope and synthetic web slings. The formal inspection program is as follows: (Note: These inspections will be kept for record keeping purposes.) Use inspection formats provided by the sling/lifting equipment vendor.

- Measured diameter of main rope
- Measured diameter of auxiliary rope
- Rope damage
- Sheave condition
- Drum condition
- Excessive wear (broken wires, rope corrosion, fitting condition)
- Chains (binding, cracked, twisted, excessive wear)
- Hooks (hardware loose, cracks, excessive wear, bent)
- Excessive stretch
- Slings (torn, safety thread exposed, worn end connections, rotten)
- Capacity table attached and legible

This inspection will show equipment type, number and capacity. Furthermore, the date of inspection will be logged. If equipment does not pass inspection, it shall be removed from the work area, and the report will show "Removed from Service". The equipment that does not pass will be destroyed. The inspector's name and signature will be entered at the bottom of inspection sheet.

Note: All equipment not in regular use will undergo a thorough inspection before returning to service. Lifting equipment will be stored inside, out of the weather.

Power Line Restrictions

Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines shall be operated so that a clearance of 10 feet is maintained between the energized source and the person and the longest conductive object he or she may contact. If the voltage is higher than 50 kV, the clearance shall be increased 4 inches for every 10kV over 50kV [1910.333(c)(3)(i)].

However, under any of the following conditions, the clearance may be reduced:

1. If the vehicle is in transit with its structure lowered, the clearance may be reduced to 4 feet. If the voltage is higher than 50kV, the clearance shall be increased 4 inches for every 10kV over than voltage.
2. If the lines are de-energized, or if insulating barriers are installed to prevent contact with the lines, and if protective measures such as guarding, isolating or insulating are provided, then the clearance may be reduced to the distance allowed within working dimensions of the insulating barrier.
3. If the equipment is an aerial lift insulated for the voltage involved, and if the work is performed by a qualified person, the clearance (between the un-insulated portion of the aerial lift and the power line) may be reduced to the distance in Table S-5 in 29 CFR 1910.133.

General Rigging and Lifting Safety Requirements

1. All rigging and lifting equipment shall be stored and handled in a manner that protects the rigging structural integrity.

2. All rigging equipment will be inspected immediately prior to use per the manufacturer's recommendation. Furthermore, all rigging will be inspected monthly and these inspections will be documented

3. Do not damage the load being lifted with the lifting apparatus. Utilize padding for soft edges and establish any potential damage to equipment by previewing stress points created by lifting.

4. Protect slings from sharp edges. Never set loads down on slings but rather blocking.

5. Do not side load: this creates uneven stress points.

6. When picking a load, determine sling angle. Lifting equipment rated capacities are different when stressed at different angles.

7. Never stand or walk under a suspended load.

8. Never leave suspended loads unattended.

9. Flagmen and those persons lifting loads will use hand signals that are understood by parties. Radio communication is preferred over hand signals.

10. No person may rig a load to be lifted unless they have been properly trained.

11. Taglines will be utilized on lifted loads at all times.

12. Damaged rigging will not be used. "Damaged" is established by following manufacturer's guidelines.

13. If chains are used for lifting, they must be certified lifting chains and be tagged as to the capacity.

14. No one is permitted to make modifications or additions of any sort to lifting equipment which affects the safe operation of the equipment. Modifications may only be made with the manufacturer's written approval.

15. The load's weight will be known before lifting is conducted.

16. Attach cable clips properly. "Never saddle a dead horse." (The clip saddle should be on the load line)

17. Lifting eyes and points of attachment will match the structural integrity of the lifting equipment. Never wrap lines around a load to be lifted.

18. Whenever internal combustion engine powered equipment exhausts in enclosed spaces, tests shall be made and recorded to see that employees are not exposed to unsafe concentrations of toxic gases or oxygen deficient atmospheres.

19. An accessible fire extinguisher of 5BC rating, or higher, shall be available at all operator stations or cabs of equipment.

20. Operators must meet the physical qualifications, pass a physical, a written examination, understand and be able to use a load chart as well as calculate loads for the crane type.

Different types of Cranes

All crawler, truck, or locomotive cranes in use shall meet the applicable requirements for design, inspection, construction, testing, maintenance and operation as prescribed in the ANSI B30.5-1968, Safety Code for Crawler, Locomotive and Truck Cranes. However, the written, dated, and signed inspection reports and records of the monthly inspection of critical items prescribed in section 5-2.1.5 of the ANSI B30.5-1968 standard are not required. Instead, the employer shall prepare a certification record which includes the date the crane items were inspected; the signature of the person who inspected the crane items; and a serial number, or other identifier, for the crane inspected.

Lock Out/Tag Out

Introduction

Lockout/Tagout (LOTO) is an energy isolation technique designed to prevent workers from being injured as a result of the unexpected activation of equipment.

Lockout/Tagout training shall be conducted at the time of hire and annually thereafter for all employees. This training is documented and the training shall cover the following topics:

- Recognition of hazardous energy sources
- Type and magnitude of energy available
- Methods and means necessary for energy control
- Affected/authorized employees (differences)
- Energy isolation procedures
- Re-training in case of new equipment or change in procedures
- New hazards

The training will also include an explanation of the limitations of tagout procedures (i.e. tags are warning devices and do not provide physical restraint), and the stipulation that tags shall only be removed by the person who installed them. Furthermore, each person will be trained on the requirement to abide by all tag-wording requirements.

Disregarding or tampering with tags is strictly prohibited.

Retraining is conducted at Jim Berry Contractors whenever machines or processes change, there is a change in the energy control procedure, or a new hazard is introduced. An individual must also be retrained whenever he/she is assigned to a new job task for which different lockout/tagout procedures are utilized. The Jim Berry Contractors Safety Department is responsible for all training and retraining.

Any training conducted will be documented. The employee's name, and the date of training must be included in the documentation. This record will be maintained per the Jim Berry Contractors Record Retention Policy.

An inspection and evaluation of the Lockout/Tagout procedures and policy shall be conducted annually by the safety department and supervisors.

Application of Lockout/Tagout

LOTO is necessary when service or maintenance is being performed on or around machinery that could cause injury with an unexpected startup or release of stored energy.

LOTO is typically required when:

- A guard or other safety device is removed or bypassed; or
- Personnel must place body parts where they could be injured by energized equipment.

Each person with a potential to be injured from the unexpected energization of the machine should place a lock and/or tag on each Energy Isolation Device.

An Energy Isolation Device is a mechanical device that physically prevents a transmission or release of energy; examples include:

- Manually operated electrical circuit breakers;
- Disconnect switches; and
- Blocks or any similar device used to block or isolate energy.

Push buttons, selector switches and other control circuit type devices are not Energy Isolation Devices.

Locks are safer than tags and must be used if possible. Tags may only be used if lockout is not possible, such as with most breakers. Tags are not as foolproof as locks and may evoke a false sense of security.

Only "Authorized Persons" who have been trained in the company's LOTO program, are allowed to perform LOTO.

Locks and Tags

- All locks, tags, and fixtures must be supplied free-of-charge by the employer, and they must be standardized within the company.

- Tags must contain a warning statement, such as "do not operate", and be substantial enough to prevent accidental removal.

- The means of attachment for a tag must be a non-reusable, self-locking, nylon cable tie capable of resisting 50# of force.

- Locks must be substantial enough to prevent removal without excessive force.

- The locks and tags designated by the company for LOTO cannot be used for any other purpose.

- Keyed locks are preferable to combination locks because they are more tamper-resistant.

- Both locks and tags must be durable and capable of withstanding the environment in which they are used.

- Locks and tags must be capable of identifying the person who applied the device. When a lock is used with a tag, the function of the tag is usually to identify the person who applied the lock.

Hazardous Energy Control

LOTO is energy control and it applies to all forms of energy, not just electricity.

In order to effectively isolate equipment, workers must be able to recognize all the energy associated with it.

Energy can take two basic forms: **Kinetic and Potential**.

Kinetic energy is the energy associated with motion, and it is not usually involved in LOTO accidents because it is easily recognized.

Potential energy is stored energy and is sometimes difficult to recognize. Forms of potential energy include:

- Electricity
- Magnetism
- Compressed gas
- Pressurized liquids
- Heat
- Corrosive chemicals
- Gravity
- Springs under tension
- Steam

Equipment is likely to contain or use several forms of energy, and in some cases, equipment may utilize a single form of energy from multiple sources.

Applying Controls

Only a trained individual, who is referred to as an "Authorized Person," is permitted to apply LOTO devices. He or she must affix them to every energy isolating device. Before the lockout/tagout is applied, all "Affected Persons" must be notified. An "Affected Person" is an individual whose job requires him to:

- Operate a machine or piece of equipment that is being serviced or repaired under lockout/tagout

- Work in an area in which such servicing or maintenance is being performed.

OSHA requires that lockout/tagout be performed according to the following six-step procedure:

1. Preparation for shutdown
2. Equipment shutdown;
3. Equipment isolation;
4. Application of lockout/tagout devices;
5. Control of stored energy;
6. Equipment isolation verification.

Preparation for Shutdown

During preparation for shutdown, the "Authorized Person" must:

- Obtain permission to work on equipment;
- Obtain written LOTO procedures;
- Have knowledge of the type and magnitude of the energy;
- Know the hazards of the energy to be controlled;
- Be aware of the methods or means to control the energy;
- Identify location of energy isolation devices;
- Inform "Affected Persons"; and
- Obtain appropriate LOTO hardware;

During equipment shutdown, the "Authorized Person" must turn off equipment according to the manufacturer's recommended shutdown procedures. It is imperative that every precaution be taken, including but not limited to those listed above, to insure that no additional or increased hazard results from the stoppage of equipment.

During equipment isolation, energy isolation devices are placed in the off or closed position. Lockout devices must be affixed in a manner that will hold the energy isolating device in a safe or off position. Fixtures may be necessary to hold the energy isolation device in the off position, or, where applicable, to allow the connection of multiple locks. ***While applying lockout/tagout devices, the Authorized Person is required to ensure that a lock or tag is placed on each energy isolation device.***

When tags are used in place of locks, the tag must be attached to the same place a lock would be placed if a lock were available. In addition, when a tag is used because the device is not lockable, the tag must be affixed in a position that will be immediately obvious to anyone attempting to operate the affected device, so that employees are alerted to the danger and to ensure that no one can accidentally energize the device. Affix the tag as close to the device as is safely possible.

During the control of stored energy, stored energy must be released, and the equipment is configured so that it cannot be reenergized or started.

Prior to start work on machine or equipment that have been locked or tagged out, the authorized employee shall verify that isolation and deenergization of the machine or equipment have been accomplished. During equipment isolation verification, an attempt is made to start equipment using the normal operating controls, and isolation is verified with instrumentation, such as a voltmeter, if possible.

Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained and otherwise rendered safe. If there is a possibility of re-accumulation of stored energy level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

Written Lockout/Tagout Procedures

OSHA requires special written lockout/tagout procedures for each piece of equipment, unless any of the following conditions are met:

- The machine has no potential storing or re-accumulation of energy while shutdown;
- The machine has a single energy source which can be readily identified and shutdown;
- Isolating and locking out the energy source will completely de-energize and deactivate the machine;
- The machine is completely isolated from the energy source during maintenance;
- The lockout device is under the exclusive control of the authorized employee performing the maintenance;
- Servicing or maintenance does not create hazards for other employees; and
- No accidents involving the unexpected activation or energization of the machine during maintenance or servicing have occurred.

  OSHA considers a LOTO Work Permit to be a written procedure.

When an isolation device must be temporarily removed, the following procedure must be followed:

1. Clear away tools
2. Remove employees
3. Remove the LOTO device
4. Energize and proceed with testing
5. De-energize and re-apply control measures
6. Document who performed the procedure, and the reason it was performed

Removal of Lockout/Tagout

Under normal circumstances, only the “Authorized Person” who applied the energy isolation device may remove the lock and/or tag.

If the person who applied the lock or tag cannot be located, a specially designated supervisor may remove the device. The supervisor must verify that it is safe to remove the lock or tag and notify all the "Affected Persons" that it has been removed.

The "Authorized Person" who applied the lock or tag that was removed by the supervisor must be notified immediately upon their return to the workplace.

Group Lockout

When large numbers of workers are involved in an activity that requires lockout, it is possible to use Group Lockout.

A Group Lockout is accomplished by:

1. The designated supervisor locking out all energy isolation points with their individual locks;

2. The designated supervisor placing the key to each in a lockbox; and

3. Each "Authorized Person" attaches his/her lock to the lockbox.

This procedure provides the equivalent protection of an individual lock on each energy isolation point for each "Authorized Person."

The authorized person that is supervising a group of employees who are working under a group lockout/tagout must ascertain the exposure status of the group members. Each employee working under the guidelines of the group lockout/tagout should affix his/her own energy isolating device to the group's larger device while he/she is affected by it, and then remove his/her individual device once he/she is no longer affected (i.e. at the end of a shift). During shift change or personnel change specific procedures must be set to ensure the continuity of the lockout/tagout and it must be documented.

Shift Changes

A procedure to ensure that equipment remains locked or tagged out during shift changes is mandatory. At Jim Berry Contractors, only the authorized person who applies the lock is authorized to remove it.

Contractors

Jim Berry Contractors host facilities and employees will coordinate their LOTO programs so that everyone is protected, at all times. This is usually done during pre-job meetings.

Training

The training must include recognition of hazardous energy source, type and magnitude of energy available, methods and means necessary for energy isolation and control. Each authorized employee shall receive adequate training. The training should address that all affected employees are instructed in the purpose and use of the energy control procedure. There should be training provisions included for any other employee whose work operations are or may be in an area where energy control procedures may be utilized.

The employee training should also address when tagout systems are used including the limitations of a tag (tags are warning devices and do not provide physical restraint). The training should also include that a tag in not to be removed without authorization. The tag is never to be ignored or defeated in any way.

Retraining is required when there is a change in job assignments, in machines, a change in the energy control procedures, or a new hazard is introduced.

All training and/or retraining must be documented, signed and certified.

Annual Review

The Jim Berry Contractors Safety Department will conduct an annual review of the Lockout/Tagout program. The inspection must be performed by someone who is not responsible for the execution of the program. The inspection must be documented, and following information must be reported: the date of inspection, equipment inspected, lockout/tagout devices reviewed, names of employees both authorized and affected, and the name of the inspector. The annual review will follow the policy requirements. The results of this inspection shall be shared with those persons responsible for implementing or enforcing policies and procedures. If an immediate safety concern is noted, actions must be taken to ensure the safety of both affected and authorized employees. Policy changes and/or enforcement protocols will be implemented as necessary.

Motor Vehicle Safety—Safe Driving Practices

General

1. Operate Jim Berry Contractors vehicles in a defensive, alert manner. Try to anticipate what might occur the existing conditions and drive to avoid potential hazards.
2. Be considerate of, and courteous to, the traveling public and pedestrians. Yield the right-of-way to avoid accidents.
3. Drive at speeds consistent with existing conditions, such as weather, ranging cattle, and so on.
4. The use of intoxicating liquor, illegal drugs, over-the-counter medicines or certain prescriptions is strictly prohibited while operating a company vehicle.
5. The laws of the various jurisdictions prohibit parking on any highway outside of the city limits. Never stop in the center of the road. Always pull over to one side before stopping. If a breakdown occurs at night and the vehicle lights go out, protect the truck with appropriate signals until aid is secured.
6. Before stopping or attempting to turn, always give proper signal to vehicle approaching from rear.
7. The driver must look both ways before crossing railroad tracks and should put the truck in low until the tracks are crossed.
8. The driver must stop and look in both directions before driving onto a major highway from a minor road.
9. The driver must slow down and sound horn of the vehicle when approaching a blind curve.
10. Drive as close to the right-hand side of the road as safety permits.
11. Do not fail to slow down the moment children are seen on the sidewalk or roadway. Drivers must observe school bus laws.
12. Keep rear-view mirror in good condition and use it for purposes intended. Make it as easy as possible for the approaching traffic to pass by staying in the lane as much as possible.
13. Cargo must be firmly immobilized or secured on or within a vehicle by structures of adequate strength, dunnage, shoring bars, tie downs or a combination of these.
14. Loads shall not exceed the manufacturer's specifications and legal limits for the vehicle.
15. The drivers of all trucks loaded with men or materials, when starting down a steep hill, shall shift gears to such a position as is necessary to insure complete control.
16. Truck and car drivers must report all accidents involving personal injury or property damage to their Supervisor immediately.
17. Only authorized employees will drive a motor vehicle in the course and scope of work or operate a company-owned vehicle.
18. Drivers must have a valid and current license to operate the vehicle. Drivers must be appropriately assessed, licensed, and trained to operate the vehicle.
19. The vehicle shall be fit for the purpose, and shall be maintained in safe working order.
20. Any person driving or riding in the vehicle must wear a safety belt.

Backing

- Look for a parking space where backing is not required.
- When backing is required:
    - Check to be sure that the path is unobstructed.
    - Ask for assistance, if necessary, to avoid hazards.
    - Continually check clearances while backing.
    - Stay at the vehicle controls while backing.
    - Back slowly.

- Jim Berry Contractors will not use any motor vehicle equipment having an obstructed view to the rear unless:
    - The vehicle has a reverse signal alarm audible above the surrounding noise level.
    - The vehicle is backed up only when an observer signals that it is safe to do so.

Turning

- When driving trucks with trailers or other long equipment, allow enough space to make the turn. Use the street you are turning onto as extra space, swinging wide, if necessary, to complete the turn.
- When turning a truck or long equipment into a narrow street or alley, try to approach it so you will be making a left turn, rather than a right turn.

Following

- Maintain extra space around the vehicle at all times to help prevent accidents.
- Leaving ample space around the vehicle allows more time to react to conflicts or other changing conditions.
- This extra space should take into account traffic, icy roads, and other driving conditions.
- All trucks operating in convoy must travel a minimum of 300 feet apart.

Parking

Employees should never back into traffic, so either select a parking space that permits you to pull forward out of the spot, or back into your parking space. If backing is necessary, follow the guidelines for backing listed in this program.

- Park vehicles where they do not present a hazard to other traffic.
- Park vehicles with ignition turned off, hand brake set, and transmission placed in park or a low gear. Use extra caution when parking on hills. Turn the front wheels to the curb/bank or place chocks under rear wheels.

- The person in charge may authorize the vehicle to be parked with the motor running and the hand brake set when necessary to operate power take-off, electric, or communications

equipment for periods of time that would run down the vehicle battery. In these cases, select a level parking place, if available. In all cases, chock blocks must be set.

Breakdowns

- If your vehicle breaks down, guide it completely off the main roadway, if possible.
- If it is necessary to tow equipment, do not stand between a towed vehicle and the towing vehicle.
- Place warning devices between the vehicle and traffic.

Accidents

- Report all accidents to the team leader or Supervisor.
- Team leaders must report all accidents involving Jim Berry Contractors vehicles as soon as possible.
- In case of a vehicle accident, the employee driving must:
    - Pull off the road, if possible, to avoid obstructing traffic.
    - Render aid to any injured persons.
    - Place warning reflectors on the road, as necessary.
    - Report the accident to the team leader and to law officers as soon as possible.
    - If a vehicle accident involves the public, do not argue with other persons involved, and DO NOT admit liability or offer to settle claims.

Distracted Driving

- Employees must utilize hands-free devices whenever possible. If it is necessary to operate an electronic device (computer, PDA, or cell phone, etc.) while operating a vehicle or other piece of equipment, pull to the side of the roadway, or cease operating the equipment.

- Employees are prohibited from carrying anyone other than Jim Berry Contractors employees in company vehicles, unless expressly permitted by management.

- Conversation, the radio, and any other audible distraction must be maintained at a reasonable volume such as to prevent a distraction to the driver.

- If a driver becomes excessively fatigued while operating a vehicle or other piece of equipment, he/she must either relinquish control of the equipment, or take a break and recuperate.

- Operators of any equipment are expected to mitigate any distractions while operating equipment. If an operator is unable to alleviate a distraction, and he/she believes his performance is hindered, he must report the situation to a supervisor.

Occupational Noise Exposure Program

General

Jim Berry Contractors employees are not normally exposed to high levels of sound. However, we will ensure that the noise hazards within our facility and those that we inspect are evaluated, and that information concerning the hazards of noise exposure is transmitted to all employees.

Responsibility

The company Safety Director is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure the success of the program. Jim Berry Contractors has expressly authorized the Safety Director to halt any operation that poses any danger of serious personal injury.

Objective

When employees are subjected to sound levels equaling or exceeding the 8 hour time-weighted average of 85 db, Jim Berry Contractors will administer or have administered by qualified personnel, audiometric examinations, obtain valid audiograms, and ensure proper controls are reviewed and implemented where feasible. If such controls fail to reduce sound levels to within the levels listed above, personal protective equipment will be provided at no cost to the employee.

Training program

This employer will institute a training program for all employees who are exposed to noise at or above an 8 hour time weighted average of 85 decibels, and will ensure employee participation in such program.

The training program will be provided to employees before assignment and repeated annually for each employee included in the hearing conservation program. Information provided in the training program will be updated to be consistent with changes in protective equipment and work processes. Each employee will be informed of the following:

- The effects of noise on hearing.
- The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care.
- The purpose of audiometric testing, and an explanation of the test procedures.
- Access to information and training materials. This employer will make available to affected employees or their representatives copies of this standard practice instruction and 29 CFR 1910.95, and will also post a copy in the workplace.

This employer will provide to affected employees any informational materials pertaining to 29 CFR 1910.95 that are supplied by OSHA.

Personal Protective Equipment (PPE)

This employer will make hearing protectors available to all employees exposed to an 8 hour time weighted average of 85 decibels or greater at no cost to the employees. Furthermore, hearing protectors will be replaced whenever necessary at no cost to the employee.

This employer will ensure that hearing protectors are worn:

- By any employee who is required by previous testing to wear personal protective equipment.

- By any employee who is exposed to an 8 hour time weighted average of 85 decibels or greater, and who: has not yet had a baseline audiogram established, or has experienced a standard threshold shift.

Employees will be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors provided.

Training shall be updated consistent to changes in PPE and work processes and include the proper techniques of wearing hearing protection.

This employer will provide training in the use and care of all hearing protectors provided to employees.

This employer will ensure proper initial fitting and supervise the correct use of all hearing protectors.

Environment Specific PPE

This employer will evaluate hearing protector attenuation for the specific noise environments in which the protector will be used.

Selected hearing protectors will attenuate employee exposure at least to an 8 hour time weighted average of 90 decibels.

For employees who have experienced a standard threshold shift, selected hearing protectors must attenuate their exposure to an 8 hour time weighted average of 85 decibels or below.

The adequacy of hearing protector attenuation will be re-evaluated whenever employee noise exposures increase to the extent that the hearing protectors provided may no longer provide adequate attenuation. More effective hearing protectors will be provided where necessary.

Baseline Audiogram & Auditory Testing

Within 6 months of an employee's first exposure at or above the action level, Jim Berry Contractors will establish a valid baseline audiogram against which subsequent audiograms can be compared. Jim Berry Contractors will obtain a valid baseline audiogram within 1 year of an employee's first exposure at or above the action level. Where baseline audiograms are obtained more than 6 months after the employee's first exposure at or above the action level, employees will wear hearing protectors for any period exceeding six months after first exposure until the baseline audiogram is obtained.

Testing to establish a baseline audiogram will be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise.

This employer will notify employees of the need to avoid high levels of non-occupational noise exposure during the 14 hour period immediately preceding the audiometric examination.

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

Each employee's annual audiogram will be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. This comparison may be done by an individual trained to technician level. If the annual audiogram shows that an employee has suffered a standard threshold shift, a retest will be administered within 30 days and the results considered as the annual audiogram.

If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift has occurred, the employee will be informed of this fact in writing, within 21 days of the determination.

A standard threshold shift is a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear.

Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, this employer will ensure that the following steps are taken when a standard threshold shift occurs:

1. Employees exposed or potentially exposed to high noise will be fitted with hearing protectors, trained in their use and care, and required to use them. For known high noise job assignments, employees will be fitted and trained prior to job assignment.

2. Employees already using hearing protectors will be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.

3. Employees will be referred for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if it is suspected that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.

4. Employees will be informed of the need for an otological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected.

Recordkeeping

This employer will maintain an accurate record of all employee exposure measurements.

This employer will retain all employee audiometric test records. This record will include as a minimum:

- Name and job classification of the employee.
- Date of the audiogram.
- The examiner's name.
- Date of the last acoustic or exhaustive calibration of the audiometer.
- Employee's most recent noise exposure assessment.
- This employer will maintain accurate records of the measurements of the background sound pressure levels in audiometric test rooms.

This employer will retain audiometric and related records for at least the following periods.

- Noise exposure measurement records will be retained for two years.
- Audiometric test records will be retained for the duration of the affected employee's employment.

All records cited in this standard practice instruction will be provided upon request to employees, former employees, representatives designated by the individual employee, and representatives of OSHA. The provisions of 29 CFR 1910.20 apply to access to records under this section.

If this employer ceases to do business, the records will be transferred to the successor employer and maintained by the successor employer. Should the company cease to function entirely the records will be provided to the respective employees, or as required by current law.

Personal Protective Equipment Policy

General

Personal protective equipment is designed to be a front line of defense for the employee where engineering controls cannot eliminate a hazard. The purpose of PPE is to shield and isolate the employee from potential hazards that could not be controlled by any other means. PPE, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation of physical contact.

Hazard Assessment

A hazard assessment must be conducted to determine the proper personal protective equipment to be worn or utilized per job assignment. OSHA 29 CFR 1910, Subpart I, Appendix B, gives the proper methodology for conducting such assessments. Jim Berry Contractors generally requires, on all jobs, hard hats, gloves, steel-toe foot protection, earplugs and safety glasses. The company supervisor over the job will conduct the hazard assessment during the pre-job safety meeting to determine if additional protective equipment is needed, such as, but not limited to, fire retardant clothing, respiratory protection or special gloves per MSDS requirements. The pre-job safety meeting roster/check-off sheet serves as the hazard assessment documentation and must include Jim Berry Contractors Supervisor (as hazard assessment certifier) name, signature, and date of assessment. Every Jim Berry Contractors jobsite must have a documented hazard assessment, and all personnel are required to wear the PPE that is determined to be necessary. Jim Berry Contractors always requires engineering practices to be implemented to control hazards before PPE will be relied upon to control any hazards.

Compliance

In order to ensure that Jim Berry Contractors not only protects its employees, but also stays in compliance with current regulations, the following PPE plan will be utilized:

- Conduct a hazard assessment to identify potential hazards and insure that affected employees are equipped with the appropriate protective equipment;
- Provide PPE training based on the findings of the hazard assessment.
- Employees will be fitted for and provided with PPE (at no cost to the employee), and it will be used and maintained in a sanitary and reliable condition.
- If PPE is damaged or defective, it shall not be used. A replacement must be provided or repairs made before the employee can return to work.
- Employee-owned PPE must be inspected by a Competent Person before it can be used on the jobsite. In addition, employee-owned PPE used on a jobsite will be governed by this program; it will be used, maintained and inspected according to the same guidelines that company-owned PPE will be.

If employee-owned PPE does not meet the standards set forth in this program, the company will issue the employee a no-cost replacement to use for the duration of the job.

Personal Protective Equipment is required to protect employees from hazards of process or environment. PPE will protect body parts from inhalation, absorption or physical contact.

Training

Each employee that will be required to utilize PPE must be trained in the following areas regarding the PPE they are to use:

- What PPE is needed for his/her job and why it is needed;
- When PPE is to be worn;
- The limitations of their particular PPE;
- How to put on, take off and adjust their PPE; and
- How to properly maintain, clean and dispose of their PPE.
- Proper fitting of PPE

Training is conducted at new hire orientation (before the employee is exposed to a hazard). Retraining is required in the following situations:

- when changes in the workplace dictate a change of PPE
- when changes in the workplace make the former training obsolete
- when the provided and/or available PPE itself changes
- when an employee cannot properly use and/or demonstrate an adequate knowledge of his/her assigned PPE.

All training and retraining must be documented; the name(s) of the person(s) trained, the date of training, the training topic, and the instructor's name must be recorded.

Hardhats

Hardhats are designed to offer the user protection from vertical and horizontal impact and limited electrical protection. All hardhats must be ANSI Z-89 approved.

Hardhats need to be inspected often to ensure that the liner is not damaged, that the dome has not sustained sun damage, that it is not cracked, or that any modifications have been made. That dome should not be brittle or soft, and there should be no holes whatsoever anywhere on the hardhat.

The application of too many hardhat stickers hinders the wearer from making a complete and thorough inspection.

Do not carry or hide anything inside the hardhat where it can hinder the shock absorption effect of the liner.

The hardhat should be worn with the visor facing forward and the hardhat level on the head. It must not be worn backward, or tilted to the side. If you are to use a winter liner, do so in accordance with the manufacturers' guidelines. Chinstraps should be considered when working at heights under windy conditions.

Clean hardhats with mild soap and water and avoid using gasoline, kerosene or any other such solvent.

The following is a chart used to determine ANSI classifications:

Old ANSI Designation	Application	New ANSI Designation
A	Protects against falling objects and insulates against 2,200 Volts	G
B	Protects against falling objects and insulates against 20,000 Volts	E
C	Protects against falling objects and offers no electrical protection	C

**Refer to your PPE Hazard Assessment for your required hardhat.

Eye and Face Protection

All safety glasses must be approved ANSI Z-87.1-1989 type—designated Z87. Eye and face protection shall be worn where any of the following hazards are present:

- Flying particles;
- molten metals;
- liquid chemicals;
- acid or caustic liquids;
- chemical gases or vapors; and/or
- light radiation

Safety glasses are the most basic form of eye protection available. Their effectiveness is limited to the hazards they are designed to protect against. They are designed to protect the user from flying objects or particles. Side shields are required at all times. Inspect regularly for scratches on the lenses and continual proper fit.

Goggles will need to be worn instead of safety glasses for a variety of reasons. Those being, but not limited to:

- Grinding
- Chipping
- Weed Eating
- Any other activity that could cause an impact hazard of the eye

Goggles also protect from splash hazards such as when handling chemicals or performing first aid on a victim with arterial bleeding. Prime examples of jobs requiring splash protection include:

- Pouring Acid
- Pumping out a sump
- Spraying any type of cleaner or solvent

Be careful to not use impact protection goggles for splash protection as some impact goggles are vented for comfort.

Face shields are designed to protect the entire face from a splash or flying particle impact. They are never to be worn by themselves without safety glasses or goggles underneath. They are to use when conducting the following or similar tasks:

- Chipping
- Scraping
- Blowing
- Buffing
- Grinding
- Dispensing paints, coatings, or solvents;
- Using pneumatic tools.
- Handling of molten metal (wire mesh face shield behind plastic shield is a must).

Welding Protection

Only approved welding hoods or pancake hoods can be used. If the welder chooses to use the pancake hood, then it must be fitted to the welder's individual face with no space or gaps. If the pancake is properly fitted, then no other eye protection is required under the pancake. ANSI approved pancake hoods are considered primary eye protection when they are fitted properly

Grinding

You must wear both primary and secondary eye protection when grinding. That means you will wear a face shield and safety glasses or goggles whenever you grind.

Hand Protection

Hand injuries are the most prevalent of injuries in most industries. Gloves are the easiest form of protection. However, gloves are very limiting. The glove must be fit to the hazard in order to provide the best protection. Common hazards include but are not limited to:

- Abrasions;
- Burns, thermal or chemical;
- Cuts;
- Punctures;
- Skin absorption;

- Temperature extremes

The term “rubber” is generically used for all synthetic type gloves available. However, not all “rubber” gloves can be used for the same type of job. Some rubber gloves are highly conductive, while others are used to protect against electricity.

To determine the proper “rubber” glove to utilize, you can:

- Ask your supervisor;
- Read the MSDS on that particular chemical;
- Refer to the local PPE Hazard Assessment for your local working environment

Leather gloves address a completely different set of hazards then “rubber” gloves. These hazards include but are not limited to:

- Abrasive materials;
- Sharp edges;
- Hot work; and
- Cold work

Cloth gloves are considered a general duty type of glove and they do offer some light protection from abrasion also.

Keep in mind that leather and cloth gloves are not to be used around chemicals as they will absorb rather than repel the chemical.

Gloves are not to be worn when working around rotating machinery.

Foot Protection

ANSI Z-41 approved footwear is the only acceptable footwear allowed. Some hazards that might be encountered in the working environment are, but not limited to:

- Falling object
- Rolling objects
- Piercing objects
- Chemicals
- Electricity

The most commonly used form of footwear used will be the steel-toed work boot. Steel toes are designed to protect against falling objects that might crush the toes.

Class “C” steel toes are designed to protect from 75 lbs. dropped from 75 inches.

You are required to read the PPE Hazard Assessment for your local working environment.

Stop Work Authority

Purpose

The purpose of this procedure is to ensure that all Jim Berry Contractors employees are given the responsibility and authority to stop work whenever any of the following conditions exist:

1. Employees believe that a situation exists that places them, their coworker(s), contracted personnel, or the public at risk or in danger
2. That could adversely affect the safe operation or cause damage to the facility
3. That could result in a release of chemical or radiological effluents to the environment above regulatory requirements or approvals
4. This procedure extends the authority to stop work to situations where an employee believes there is a need to clarify work instructions, or to propose additional controls

Jim Berry Contractors employees are encouraged to contribute ideas towards, or provide a method for resolving the issue.

Scope

This procedure is applicable to all personnel working at the jobsite.

Responsibilities and Roles

Jim Berry Contractors employees are responsible to initiate a Stop Work intervention when warranted, and management is responsible to create a culture where Stop Work Authority is exercised freely.

Employees

- The responsibility and authority to stop work or decline to perform an assigned task without fear of reprisal, to discuss and resolve work and safety concerns. The Stop Work may include discussions with co-workers, supervision, or safety representative to resolve work-related issues, address potential unsafe conditions, clarify work instructions, or propose additional controls, etc.

- The responsibility and authority to initiate a Stop Work immediately when the employee believes a situation exists which places himself/herself, a coworker(s), or the environment in danger or at risk.

- All employees have the authority and obligation to stop any task or operation where concerns or questions regarding the control of HSE risk exist.

- Are expected to report any activity or condition for which they have initiated a Stop Work. Notification should be made to the affected worker(s), and to the supervisor or their supervisor's designee at the location where the activity or condition exists.

Stop Work

- The responsibility to notify their supervisor if a raised Stop Work issue has not been resolved to their satisfaction through established channels prior to the resumption of work.

- All Stop Work Interventions shall be documented for lessons learned and corrective measures to be put into place.

- Stop Work reports shall be reviewed by supervision in order to measure participation, determine quality of interventions and follow-up, trend common issues, identify opportunities for improvement, and facilitate sharing of learnings.

- Employee can contact their safety representative with a concern, or to initiate a stop work, if the employee prefers to remain anonymous.

Management/Supervisor/Person in Charge (PIC)/ Field Work Supervisor (FWS)

Management and supervision are committed to promptly resolve issues resulting from an employee-raised Stop Work [10 CFR 851.20]. Management (e.g., Directors, Managers, Supervisors) responsibilities are to:

- Resolve any issues that have resulted in an individual stopping a specific task(s) or activity before returning to work.
- Provide feedback to individual/s and the affected work group who have exercised their Stop Work responsibility on the resolution of their concern prior to resuming work. If the employee that issued a stop work is not available due to reasons such as vacation, shift change, or training, then the supervisor provides the feedback to the safety representative prior to resuming work.
- Ensure no actions are taken as reprisal or retribution against individuals who raise safety concerns or stop an activity they believe is unsafe.

Safety Representatives are expected to:

- Assist employees, supervision and management in the resolution of safety issues and concerns.

- Immediately contact management and work to resolve issues when an employee has called a situation to their attention that has not been resolved.

- Discuss resolution with employees involved in a work stoppage where resolution was completed after their shift or when they were unavailable, or where he/she acted as their representative in reaching resolution.

- Work as the agent of an employee that prefers to remain anonymous to work directly in the resolution of the stop work.

- Be sure that all employees have received Stop Work Authority training before any initial assignment. The training must be documented including the employee's name, the dates of training and subject.

Process

1. **STOP**
2. Notify
3. Correct
4. Resume

When an unsafe condition is identified the Stop Work Intervention will be initiated, coordinated through the supervisor, initiated in a positive manner, notify all affected personnel and supervision of the stop work issue, correct the issue, and resume work when safe to do so.

1. Stop work if an activity or condition is believed to be unsafe, such as:

    a. A situation exists that places them, their coworker(s), contracted personnel, or the public at risk or in danger;
    b. A situation could adversely affect the safe operation or cause damage to the facility; or
    c. A situation could result in a release of chemical or radioactive effluents to the environment above regulatory requirements or approvals.
    d. To clarify work instructions or to propose additional controls

2. Ensure the work/activity is in, or placed in a safe condition and immediately notify supervision/management and affected workers when you stop work or decline to perform an activity.

3. Resolve any issues that have resulted in an employee stopping work or an activity.

4. It is the desired outcome of ANY Stop Work Intervention that the identified safety concern(s) has been addressed to the satisfaction of all involved employees prior to the resumption of work. Additional investigation or follow-ups may be required to identify and address root causes.

Excavation, Trenching, and Shoring Safety

Objectives

To provide guidelines to ensure:

- Personnel are protected during excavation activities
- Clients' facilities are protected during excavation activities
- Requirements of OSHA Standard 29 CFR 1926.650 are met

Scope

All Jim Berry Contractors employees and contractors working near excavations and trenching activities should follow the following guidelines.
Requirements/Guidelines:

1. To protect employees against cave-ins, a protective sloping, benching, shielding or shoring system must be installed in each excavation:
2. In excavations more than 4 feet in depth or in excavations less than 4 feet if there is any indication of cave-ins, shielding and shoring systems must be designed and constructed to withstand the anticipated loads.
3. Jim Berry Contractors will have a Competent Person on-site who is capable of identifying existing and predictable hazards in the surroundings, and who can take prompt corrective measures to eliminate such hazards. This person must be on-site during all excavation activities where the potential for employee injury exists.
4. The pipeline, all valves, sleeves, and other appurtenances must be properly supported at all times during excavation, repair, and backfill operations.

Permit-Required Confined Space

If a Jim Berry Contractors client requires a trench to be labeled a permit-required confined space or if a hazard exist or conditions exists that require a confined space permit, then a confined space permit must be completed and rescue equipment must be available and attended and all other components of the confined space permit will be followed.

Excavations more than 20' feet deep

Excavations more than 20' feet deep must be designed by an engineer educated and certified for excavation projects of this nature.

Before Excavations Take Place

- Review facility drawings/pipeline atlas.
- Place all calls to DigTess (One Call notification) with at least 48 hours notice and document this call.
- Conduct line finding operations
- Probe all lines
- Consider electrical hazards especially near rectifiers
- Consult with persons that may have information about existing underground facilities
- If a utility company or owner cannot respond to a request to locate underground utility installations within 24 to 48 hours, or cannot determine the exact location of these installations, Jim Berry Contractors may proceed, provided supervisors and equipment operators exercise caution and utilize detection equipment or other acceptable means to locate utility installations.

Hazard Recognition and Prevention

An excavation must be inspected daily by a Trenching/Excavation Competent Person, before anyone enters excavation or any work is done, and after every hazard-increasing occurrence (ie. rainstorm, equipment vibration, or pipe move, etc.) to detect:

- Potential cave-ins
- Failure of protective systems and hazardous atmospheres
- Potential for personal injury
- Soil subsidence, cracking, shifting, or water undermining and seepage indicate potential cave-ins.
- Tests should be conducted for air contaminants (oxygen, flammable gases, etc. and provide ventilation where necessary.
- Employees must be protected from water accumulation. Such precautions could include a support or shield to protect against cave in, a pump to prevent accumulation, or a harness and lifeline. A competent person must inspect the integrity of the sides of a trench before work may commence where water accumulation is present.
- Competent persons should examine the possibility of cave-ins, failures or protective systems, etc. If problems are found, provisions should be made for immediate personnel removal.

If any hazard is identified, corrective action must be taken immediately.

Diversion ditches or dikes should be used to prevent natural drainage from entering an excavation. The Competent Person must determine the impact that any accumulated water in an excavation and the protective system being used prior to anyone entering the excavation.

Note: All Jim Berry Contractors Supervisors and persons responsible for erecting trenches have received Competent Person training and will follow all aspects of this training as well as each component of the Excavation Permit. These persons will conduct the daily excavation inspections.

Excavation Requirements and Precautions

- Ladders or ramps (earthen or structural) must be used to enter and exit excavations that are 4 feet deep or deeper.

- Ladders or ramps for access and egress must be positioned at no more than 25-foot intervals. Ladders will be secured at the top to prevent tipping or falling and extend at least 3 feet above grade.

- Keep heavy equipment and vehicles as far away from the edge of the excavation as practical.

- Keep spoil at least 2 feet away from the edge of the excavation.

- Do not lift loads over personnel and personnel should not work under loads while they are being lifted. This responsibility rests with both parties.

- Where employees are required or permitted to cross over excavations, walkways or bridges will have standard guardrails, mid rails and toe boards.

- Unattended excavations must be barricaded. This includes leaving work at the end of the day. Post “Open Pit” signs in clear view along the barricade.

- Atmosphere monitoring is required on trenches 4 feet deep or more if there is a potential for explosive environments, low oxygen content, or other hazardous or toxic atmospheres.

- When trenching is conducted near vehicular hazards, employees will be provided orange or fluorescent green reflective vests. These vests are worn when hazards are present. If necessary, signs and barricades should be installed as well as flaggers and spotters.

Determining Pipeline Location

To protect against electrical shock or line puncture, insulated probe bars should be used when probing through soil to identify underground facilities.

If any foreign facility is located within the area of proposed excavation, the exact location and depth of the facility should be determined:

- By probe inspections and hand-digging
- In the presence of the Jim Berry Contractors client/pipeline owner
- With as many test pits as necessary

If it is possible to determine (by electronic line locating devices or mechanical inspection probes) the approximate horizontal and vertical location of the facility, powered excavation equipment may be used during the initial excavation period. However, no powered excavating equipment will be used within a tolerance zone of 18 inches of a facility until its exact running depth (linear) and size are verified by actual probing rod inspection and placement of the probe rode at the line.

Probing should be used to identify additional lines that may not be identified in facility documentation. In some cases, hand digging may be the only way to do the work safely. If this is to be the chosen form of facility exposure, each person hand digging should be given adequate breaks and watched closely by the supervisor.

When the utility owners have not responded to the One Call notification within 48 hours of the call, Jim Berry Contractors may proceed, allowing that process is made cautiously and within the line locate parameters found elsewhere within this program. If the utility line locator does arrive to locate the line and cannot find it within 48 hours of the One Call notification, Jim Berry Contractors may proceed cautiously within the parameters outlined elsewhere in the program.

Erosion Control

Jim Berry Contractors will maintain temporary and permanent erosion control measures before, during, and after excavation to prevent right-of-way damage, stream pollution, and public inconvenience.

Support Systems

Where the stability of adjacent structures may be compromised by excavation, support systems (shoring or bracing) must be installed.

Remove or support any surface objects in the area before excavation begins. Do not undermine the base of a foundation, sidewalk, pavement, or similar structures unless a support system is installed.

Soil Classifications

The soil exposed by an excavation may be homogenous or composed of multiple layers with various stabilities. The stability of each layer must be classified as (in decreasing order of stability): Stable rock, Type A, Type B, or Type C. Soil types are defined below:

Stable Rock: Solid mineral matter that can be excavated with vertical sides and remain Intact while exposed.

Type A Soil: Cohesive soils with an unconfined compressive strength of at least 1.5 tons per square foot (tsf). Examples are clay, silty clay, sandy clay, and clay loam. Soil cannot be classified Type A if it is fissured, subject to vibration, or previously disturbed.

Type B Soil: Cohesive soil with an unconfirmed compressive strength greater than .5 tsf. Type A soil that is fissured or subject to vibration.

Unstable rock: Material that is part of a sloped, layered system where the layers slant toward the excavation on a slope less steep than 4 horizontal to 1 vertical.

Type C Soil: Cohesive soil with an unconfined compressive strength of .5 tsf or less. Includes:

- Granular soils like gravel, sand, sandy loam
- Unstable submerged rock
- Submerged soil
- Soil from which water is seeping
- Material in a sloped, layered system where the layers slant toward the excavation on a slope of 4 horizontal to 1 vertical or steeper.

"Mud" is not a soil classification. Soil must be classified based on a visual and a manual analysis.

Visual Test

Observe the excavation site, soil adjacent, to the excavation, soil forming the sides of the excavation, and soil samples from excavated material.

Soil that is primarily composed of fine-grained material is considered cohesive: it will remain in clumps when excavated. Soil composed primarily of coarse-grained sand or gravel is granular material: it breaks up easily when excavated.

Check the sides and surface of the excavation for:

- Cracks (fissures)
- Fallen chunks of soil
- Layered systems
- Water run-off or seepage

Observe the excavation and the adjacent area for evidence of previously disturbed soil and sources of vibration (traffic or equipment).

Manual Test

To estimate the unconfined compressive strength of cohesive soils, pick up a large clump of undisturbed soil and apply pressure to it with your thumb. The thumb can readily indent Type A soil, but cannot easily penetrated it. With regular effort, the thumb can penetrate Type B soil. Type C soil is easily penetrated several inches by the thumb, and can be molded by light finger pressure.

Soil must be re-classified when factors or conditions may change it in any way (i.e. rain, flooding, and vibration, etc.).

Excavating

Only qualified power equipment operators will be permitted to excavate in the close proximity of an underground facility. Jim Berry Contractors prefers that a client representative be present when excavating in these situations.

Every reasonable precaution to prevent damage to underground facilities must be taken. Any accidental damage to pipe, coating, valves, corrosion protection wires, or other accessories must be reported immediately to the local supervisor. Damages requiring repair will be repaired before back filling.

Jim Berry Contractors Supervisors and client representatives will discuss covering the teeth of the bucket with a metal plate. This is a good practice and is encouraged by Jim Berry Contractors management.

Precautions must be taken to protect against the hazards of soil instability and unsafe accumulation of vapors. Trenches may be considered confined spaces and will go on confined space entry permits based on free product being visible, vapor/gas seepage is probable, and/or a hazardous atmosphere exists.

A protective sloping, shielding, or shoring system must be installed in excavations over 4 feet deep or as soil conditions warrant.

Protective Systems

Sloping

Where field conditions permit, sloping is the preferred protective system. The slope of an excavation face is expressed as the ratio of horizontal distance to vertical rise (H:V).

All unsupported excavations more than 5 feet deep must be sloped at an angle no steeper than the maximum allowable slope. Maximum Allowable Slopes:

Soil/Rock Type	Allowable Slope
Stable rock	Vertical (90°)
Type A	¾: 1 (53°)
Type B	1:1 (45°)
Type C	1 ½: 1 (34°)

A short-term excavation (open 24 hours or less) in Type A soil that is 12 feet deep or less has a maximum allowable slope of ½: 1 (63°).

Maximum allowable slopes apply to layered soil conditions. However, when a less stable soil layer is located below a more stable soil layer, the less stable soil layer must determine the degree of slope for all of the excavation above the layer.

Retaining barriers should be installed as needed on the excavation slope to stop and contain any falling rocks, materials, or equipment.

Benching

The maximum allowable slopes identified in the sloping section may not be exceeded when incorporating benching as a protective system.

Shielding Systems

Shielding systems are designed to protect employees in case of a cave-in. They are not designed to support the sides of an excavation.

Pre-manufactured shielding systems must be used in accordance with the manufacturer's recommendations and limitations.

Job-built shielding systems should be avoided, but if needed (narrow trenches), must be constructed in accordance with tabulated data designed or approved by a registered professional engineer.

Shields must be installed in a manner to restrict lateral movement.

Shields must be installed at least 18 inches above the top of the vertical side of the excavation.

Side excavations around a shield must not exceed 2 feet below the bottom of the shield.

Employees are not allowed in a shielding system when it is being installed, removed or moved horizontally.

Shoring

An aluminum pneumatic, aluminum hydraulic, or timber shoring system must be installed in trenches, except stable rock, that are not protected with sloping or shielding.

Soil must be classified prior to installing a protective shoring system.

Support members of a shoring system may include cross braces, wales, uprights, and wood and steel sheeting.

Members of the support system must be securely connected together, starting at the top of the excavation and working downward.

The shoring system must be installed tight against the walls of the trench to avoid impact loading.

Keep all members of the shoring system as straight as possible. Do not walk or climb on support members.

Side excavations must not exceed 2 feet below the bottom of support members.

Removal of shoring must start at the bottom of the trench and work backward.

Backfilling must begin immediately after the removal of the shoring system. No personnel entry after the system is removed.

Welding, Cutting and Hot Work

General Requirements

Precautions that are to be taken shall be in the form of a written permit. Before cutting or welding is permitted the area shall be inspected and a written permit shall be used to authorize welding and cutting operations.

A hot work permit must be issued before hot work is performed:

- Within 150 feet of an area where combustible/flammable vapors or dust are or could exist; or

- Within 35' of a solid combustible material.

Hot work is defined as any work that will generate sufficient heat to ignite combustible and/or flammable materials. Combustible materials are substances that will freely support combustion once ignited. The following activities are examples of hot work; however, there may be more that are applicable at specific locations:

- Welding
- Flame Cutting
- Grinding
- Portable Heaters or Steamers
- Electrical Tools/Equipment (that are not explosion proof or intrinsically safe)
- Sandblasting operations (static charges)

The supervisors are responsible for the pre-work inspection, and once completed, they must ensure that all work is permitted prior to authorizing the commencement of any hot work. The pre-work inspection and subsequent preventative actions must all be documented.

Hot Work Procedures

Jim Berry Contractors employees must obtain authorization from the supervisor overseeing the work before beginning any hot work. Any person may authorize the stoppage of work if there is reason to believe an unsafe condition or situation exists.

The company representative responsible for supervising hot work must complete the hot work permit before work may begin. (Host facility permits and gas tests are acceptable provided they meet the requirements of this section.)

The permit must be reviewed and signed by the person performing the work, the person authorizing the work, and the person approving the work to ensure his/her acknowledgment of the conditions set forth in the permit. If contract personnel are performing the hot work, the contractor's representative at the location where the hot work is being conducted must retain a copy of the permit.

The person giving approval for the hot work to begin must ensure that the area is periodically surveyed to ensure the conditions remain suitable for hot work. The work area shall be re-surveyed following all breaks, meals, meetings or other interruptions in the work.
If the object to be welded or cut cannot be moved, all moveable fire hazards must be removed. If all the fire hazards cannot be removed, then guards shall be used to confine the heat sparks and slag and to protect the immovable fire hazards. If removal and/or guards are not feasible, then the work cannot be done.

Operators of equipment should report any equipment defect or safety hazards to their supervisor and discontinue use of the equipment until it has been inspected, and its safety has been assured. Repairs shall be made only by qualified personnel.

While working in confined spaces, proper ventilation and lifelines must be utilized, and all gas cylinders must be secured. Buckets will be used for removal of electrodes. Gas cylinders must be able to be shut off immediately in the event of an emergency, and warning signs must be posted at the point of entry. Continuous monitoring should be provided in areas where conditions are likely to change, and in high-risk areas such as in tanks, or a plant's process area.

Ventilation and/or respirators must be utilized if any employee inside of a work area is welding, cutting or burning lead base metals, zinc, cadmium, mercury, beryllium or any other potentially hazardous metal not listed here.

If hot work conditions change and a permit expires due to a potential danger (i.e., leak, wind change, evolution of hazardous fumes, gases or dust, lower explosive limit (LEL) reading above 10 percent, etc.), no work will be performed until additional testing is conducted. The source of the hazard must be determined, controlled and the area re-inspected and permitted before work can resume.

Expired hot work permits will be kept on file at the facility for at least one month beyond their expiration date.

Permits will not be valid for shifts other than the one in which the work started. Each permit will be dated and will carry an expiration time.

The checking and testing that precedes the issuing of a permit should be as close as practical to the time the work is to be done. The percent of the lower explosive limit will be recorded on the permit.

Hot work shall not begin if a lower explosive limit (L.E.L.) greater than 10 percent is measured. No exceptions to this rule shall be made. Non-direct reading instruments are not permitted for hot work or confined space entry jobs.

Combustible gas indicators will be calibrated prior to performing the gas test. If the meter is to be used multiple times throughout the shift it only needs to be calibrated at the beginning of the shift. The calibration results must be documented and filed appropriately at the location.

NOTE: Special considerations must be given to tanks that are being purged with an inert gas. "Normal" combustible gas indicators will not accurately measure the combustible gas in a tank being purged.

When a fire watch is necessary, he/she must be on duty at all times during the performance of the work.

In the event the hot work will extend past the permit's expiration time, a new permit must be obtained.

When the work is complete, the company representative that is responsible for the hot work must be notified.

Welders assigned to operate arc welding equipment must be properly trained and qualified to operate the equipment. Cutters, welders and supervisors must be suitably trained in the safe operations of their equipment and/or the equipment for which they are responsible.

Welders must be trained on and familiar with 29 CFR 1910.254, and 1910.252(a)(b) & (c). If gas shielded arc welding is done they must be familiar with the American Welding Society Standard A6-1-1966. Before work will be permitted, a welder's training and credentials must be verified.

A first aid kit must be available at all times and for all work areas in case of an injury or emergency.

Fire Watch

The operating supervisors are responsible for assigning a fire watch when the welding, flame cutting, grinding, use of portable steamer equipment, etc. is within 35 feet of a potential combustible or vapor source. The fire watch must be trained in the proper use of a cartridge-operated fire extinguisher. The fire watch must also be familiar with the facilities so he/she can sound an alarm in the event of a fire, where applicable. Supervisors must be familiar with the duties of a fire watch, including:

1. Understanding the location and nature of the hot work.
2. Survey the area to be sure the necessary fire protection equipment is in place and ready for use.
3. Survey the area for combustible or flammable materials.
4. Remain in the area while the work is being performed and remain in constant communication range with person(s) doing the hot work.
5. Never leave the area for any reason without a replacement.
6. When bulkheads or walls are involved in hot work, both sides require a fire watch.

The fire watch must be in the ready position at all times while hot work is being performed. The ready position consists of being attentive and having the fire extinguisher readily available, and in position prior to the start of work. The extinguisher nozzle must be in hand while the hot work is being performed. The extinguisher must be returned to its assigned location when the hot work is complete.

The fire watch must periodically survey the area with an LEL monitor to ensure the area is suitable for hot work. The work will stop immediately if the combustible gas indicator registers 10 percent or greater of the lower explosive level (L.E.L.) in the atmosphere. Only direct reading instruments are permitted for this work.

The fire watch is authorized to stop the work whenever he/she believes the conditions are not suitable for such work. The fire watch is also authorized to stop the work if the work description on the permit is being exceeded.

The fire watch shall be equipped with the personal protective equipment (PPE) needed to perform the work safely (i.e. properly shaded goggles for working with welders).

A fire watch shall be maintained at least a half an hour after the welding or cutting operation was completed.

A fire watch must be present when:

- Work is performed at a location where a fire might develop.
- Combustible materials are closer than 35 ft. (10.7M) to point of operation..
- Combustibles are 35 ft. (10.7M) or more away but are easily ignited.
- Wall or floor openings within 35 feet (10.7M) radius expose combustible materials.
- Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
- For a minimum of 30 minutes following completion of the job.

Compressed Gas Cylinders

Rules for handling cylinders:

1. Do not accept damaged cylinders.

2. Keep protective caps on cylinders while they are not in use.

3. Keep cylinders away from direct flame, heat and sources of ignition.

4. Properly secure cylinders at all times. While moving a cylinder, avoid rough handling and the striking of cylinders.

5. Cylinder contents must be properly labeled; do not rely on the color of the cylinder, and return improperly labeled cylinders to the vendor.

6. Close all valves when not in use.

7. While in use, cylinder valves must have a handle or other shutoff mechanism in.

8. Regulators are to be removed from cylinders when not in use unless the regulator is designed to be capped or the cylinders are in an approved welding cart.

9. Discharge leaking cylinders outdoors by opening the discharge valve slowly one-fourth of a turn.

10. Use proper lifting cradles for cylinders. Do not lift by the valve or protective cap. Ropes and slings are not to be used for lifting cylinders.

11. Compressed gas cylinders are not used for any purpose other than for containing compressed gas—bottles, for example, are not to be used as rollers.

NOTE: Employees who work with or supervise the care of oxygen or fuel gas supply equipment must be properly trained, tested and judged competent for such work.

Using Cylinders

1. Never use a cylinder of compressed gas without a pressure-reducing regulator connected to the cylinder valve.

2. Always close the cylinder valve before attempting to stop leaks.

3. Do not use oil or grease as a lubricant on valves or attachments to oxygen cylinders.

4. Threads on fittings must correspond to cylinder valve outlets.

5. Check valves/flame arrestors are to be utilized on fuel gas/oxygen systems.

6. Do not use oxygen in place of compressed air.

7. Use safety equipment that matches the hazards of the compressed gas.

Storing Cylinders

1. Store cylinders in an upright, secured position, and store empty and full cylinders separately.

2. Do not store oxygen cylinders within 20 feet of combustible materials or fuel gases unless divided by a 5 foot fire resistant wall that is fire-rated for one-half hour.

3. Mark empty cylinders ‘Empty,’ and they can only be refilled by their owner. A cylinder is considered empty when it only has 25 psi of gas remaining.

4. Cylinders shall not be subjected to temperatures either above 125 degrees F or artificially created low temperatures.

5. Cylinders shall be separated by hazard class. For example, oxidizers must be stored away from flammable gases.