



DEB Construction, LLC

Injury and Illness Prevention Program



Core Ideology:

"We serve by improving lives and fulfilling dreams."



DEB Construction, LLC

Injury and Illness Prevention Program

First Aid/Medical Attention Information

Emergency Situation Response

OSHA Inspection

American Red Cross/Adopted Practices

Revised April 2024

First Aid / Medical Attention Information

DEB Construction, LLC carries workers' compensation insurance coverage as required by law, to protect employees who are injured on the job. This insurance provides medical, surgical and hospital treatment in addition to payment for loss of earnings that result from work-related injuries. Workers' compensation benefits are paid in accordance with a statutory schedule established by the state.

An employee who suffers any on-the-job injury must report the incident to his/her supervisor immediately and must complete an "Injury Report" form. DEB Construction, LLC has designated the following medical facilities to treat work related injuries:

Southern California:

Anaheim Office

Concentra Medical Center
1101 S. Anaheim Blvd.
Anaheim, CA 92805
(714) 937-1919

24 Hours, 7 days a week

Northern California:

San Jose Office

Samaritan Medical Care Center
554 Blossom Hill Rd
San Jose, CA 95123
(408) 364-7600

M-F, 8am – 6pm

Weekends & Holidays, 9am-3pm

****For work sites outside of Southern or Northern California, please check with your supervisor on the facility you should be using.***

Call 911. If necessary, provide CPR/First Aid until medical personnel arrives at the scene.

An employee with a work-related injury has the right to receive medical care from this facility, to select or change the treatment physician, and to receive temporary disability indemnity, permanent disability indemnity, vocational rehabilitation services, and death benefits as appropriate.

All questions regarding DEB Construction's workers' compensation insurance or work-related injuries should be directed to Human Resources at 714 632-6680.



Emergency Situation Response

- 1) Call 911
- 2) Assist in First Aid
- 3) Call 1st Contact: Human Resources – (714) 632-6680
Call 2nd Contact: Scott Shellhammer, President – (714) 904-9879
Call 3rd Contact: Shirley Beard, Controller – (714) 318-2600
- 4) Take Photos and Video of Accident Site
- 5) Fill out “Accident Investigation Report”
 - Review the information on how to handle Accident Investigation

Accident Investigation

A primary tool used by DEB Construction, LLC to identify the areas responsible for accidents is a thorough and properly completed accident investigation. The results of each investigation will be identified in writing and submitted for review by management and DEB Construction, LLC insurance risk management advisors.

A written report should be prepared from notes and diagrams made at the scene. All statements should include the time and date given, and the location onsite, where the statement was made. All pictures should be similarly identified. Let people know on tape that they are being recorded. Also, make sure that the names, addresses and day and evening phone numbers of all eyewitnesses are noted or recorded.

If a formal police report or other official investigation is conducted by any government agency, get the name and badge number of the official, or a business card, and find out when a copy of the official report will be available to the public. During this process call the Safety Officer immediately and inform them of the occurrence.

If you are requested to make a statement, you have the right to have the Company lawyer attend your statement at no cost to you.

A satisfactory accident report will answer the following questions:

- 1. What happened?** The investigation report should begin by describing the accident, the injury sustained, the eyewitnesses, the date, time and location of the incident and the date and time of the report. Remember: who, what, when, where and how are the questions that the report must answer.
- 2. Why did the accident occur?** The ultimate cause of the accident may not be known for several days after all the data are analyzed. However, if an obvious cause suggests itself, include your conclusions as a hypothesis at the time you give your information to the person in charge of the investigation.

Corporate Office Address:
2230 E. Winston Road
Anaheim, CA 92806



- 3. What should be done?** Once a report determines the cause of the accident, it should suggest a method for avoiding future accidents of a similar character. This is a decision by the Executive Safety Officer. Once a solution has been adopted, it is everyone's responsibility to implement it.

- 4. What has been done?** A follow-up report will be issued after a reasonable amount of time to determine if the suggested solution was implemented, and if so, whether the likelihood of any accidents has been reduced.



What to Do During an OSHA Inspection

OSHA Inspections are unannounced and can take place anytime during normal working hours.

When the Inspector Arrives:

1. Be POLITE! Introduce yourself.
2. IDENTIFICATION – The OSHA compliance officer must present his or her credentials. Ask to see them immediately, along with ID's of anyone accompanying them. Credentials include a color photo of the compliance officer and an identification number. Beware of imposters.
3. **Immediately call *President and or General Superintendent*** and in their absence call your Project Manager. You should politely tell the inspector that you are advising your supervisor of the inspection and that the phone call will only take a moment.

Opening Conference:

1. Meet in a private area. Take the inspector into a separate room or area. During the initial conversation, don't allow a bunch of guys to hang around trying to hear what is going on. This initial discussion should be low key, but private.
2. COMPANY REPRESENTATIVE. The inspector will ask to see the person in charge. If no employer representative can appear within a reasonable time, the inspection may still be conducted. If another contractor on the jobsite is being inspected, or if your site is open to public view, we could still be cited for violation. Be sure all employees who might find themselves "in charge" know what to do.

NOTE: The DEB Construction superintendent is the primary responsible person on our project sites for safety. If you (DEB Superintendent) are gone off site when an OSHA inspector shows up, the responsibility will shift to each individual sub contractor's foreman, but that is not necessarily a satisfactory situation. Remember even though you are the primary safety person, each contractor is still responsible for their crew and the safety violations of their crew.

3. PURPOSE.
 - A. Ask the purpose of the inspection.
 - B. If the inspection is in response to a complaint, ask who made the complaint.
In California, the OSHA inspector will probably not give you any information about the complaint. They would simply tell you a complaint was filed with their office.
 - C. If the person requested to remain anonymous, ask if it was a present or past employee; customer; supplier; other contractor; union official; or other party. Request a copy of the complaint. Remember, some states will not provide you any information specific to the complaint for fear you could identify the individual filing the complaint.
4. WARRANTS. Although we have the right to request a warrant for inspection, that is not our company policy and we will not request one. **WE will allow the inspection** to proceed after all the necessary preparations and identifications have been made.



5. ATTITUDE. Be polite, cooperative and respectful. Show an awareness of the seriousness of the safety hazards. Control your emotions. Take notes. Do not delay the inspection. Respond positively to requests. Never lie to a compliance officer.
6. Be prepared to provide the following information to the compliance officer:
 - IIPP (Injury and Illness Prevention Program): Our white loose-leaf notebook.
 - Code of Safe Practices: Contained within the white loose-leaf notebook.
 - Hazard Communication Program and MSDS: Your Project Coordinator provides you the MSDS sheets. Basics of the program are inside the loose leaf IIPP notebook.
 - Safety Posters: These come at job start up from your P.C.
 - Cal/OSHA Permit and Notification Form for Trenching: This is ONLY required if a subcontractor is digging. You should have requested a copy of this permit and notification form from your subcontractor during your pre-start up conference.
 - OSHA Log 300/300A: A blank form is provided inside your IIPP Notebook.
 - Tailgate Meeting Forms: The forms are faxed to the office, but the originals should all be in a file at the job site.
 - CPR/First AID Trained Personnel: You should carry your card or a copy of the card in your wallet or in your vehicle.
 - Available Personal Protective Equipment: All project sites should have hard hats, simple dust masks, safety glasses and ear plugs available for DEB personnel. If needed, you would also have such things as harnesses and gloves.
 - Who on site is in charge of safety?: The DEB Construction superintendent is in charge of safety at each site.
 - And possibly other safety related issues.

The Walk Around Inspection

A company representative can and must accompany the inspector on the walk around. I urge you to get one representative from each subcontractor working on your site to accompany you and the OSHA inspector on the Walk Around. We do not want to take responsibility for possible violations by subcontractors or their employees. While we try to enforce safety requirements and regulations with our subs, **we ARE NOT assuming ANY of their responsibilities**, only offering additional advice.

During the walk around, you should be prepared to:

- Take notes of what areas and equipment were examined, what employees were interviewed, and what comments were made by the inspector.
- Take pictures (during or immediately after inspection) of conditions photographed by the inspector but may show a different angle or perspective.



- Act as a company spokesperson and point out company safety practices and corrections which have been made. Do not point out conditions you knew, or thought were dangerous. My advice to you, say as little as possible, but answer all questions you are asked. Do not offer any suggestions to the inspector. Do not try to “Lead” the walk. Follow the inspectors’ directions.
- If possible, immediately correct violations pointed out. Identify areas where employees are not affected. For instance, if the inspector makes a comment about a non-compliant electrical cord, ask the worker to place that cord in his vehicle right away.
- The compliance officer may ask that substances be removed, an operation be stopped, or personnel be removed. If a serious hazard is pointed out, it is best to correct it or remove the employees from the hazard. If the inspector tells you something is dangerous, do not argue, do not hesitate, just shut that work down until the hazardous condition can be fixed or removed.

The Exit Conference

The inspector will meet with each affected employer representative to indicate apparent violations and potential citations. An “abatement time” may also be identified for correction of hazards. Ask questions if you do not understand what the compliance officer is trying to say. Do not argue. Point out information that may help.

After the Inspector Leaves

Write a report based on your notes and photographs. Also note what violations the inspector identified.



SPECIALIZED BUILDERS
DEB Construction, LLC

Design. Engineer. Build.

April 30, 2024

DEB Construction has adopted the following practices for the respective topics:

- Forklift Safety
- Respiratory Protection/ Silica Dust
- Heat Illness
- PPE Requirements
- Fire Protection
- Hazard Communication
- Lockout Tagout
- JHA Review
- Ladder Safety/ Fall Protection
- Harness Training / Fall Protection

During our company quarterly safety meetings, one hour of training is covered from one of these topics listed above for all field personnel and the Project Management team.

Additionally, DEB Construction adheres to OSHA's guidelines as applicable and uses their reference materials for distribution and review with our field personnel.

DEB Construction also partners with American Red Cross and Wellness Smart MD for all management and field personnel to be certified and/or recertified in First Aid/CPR/AED every two years. Instructors conduct the training at their facilities.

Corporate Office
2230 E. Winston Rd.
Anaheim, CA 92806
P (714) 632-6680
F (714) 632-5721

San Jose Office
322 Piercy Road
San Jose, CA 95138
P (408) 337-8128
F (408) 904-5048

Scott Shellhammer
President

AZ #ROC094568
CA #372419
NV #0041522
OR #222658
UT #10237373-5501
WA #DEBCOL822KB

www.DEBconstruction.com





DEB Construction, LLC

***Injury and Illness
Prevention
Program***

Revised April 2024



Written Plan:

Every employer should have a written Injury and Illness Prevention Plan. This is our plan. Please read it carefully. While no plan can guarantee an accident free work place, following the safety procedures set forth in this manual will significantly reduce the risk of danger to you and your co-workers. Thank you for working safely.

Introduction to Our Program:

State and federal law, as well as company policy, makes the safety and health of our employees the first consideration in operating our business. Safety and health in our business must be a part of every operation, and every employee's responsibility at all levels. It is the intent of DEB Construction, LLC to comply with all laws concerning the operation of the business and the health and safety of our employees and the public. To do this, we must constantly be aware of conditions in all work areas that can produce or lead to injuries. No employee is required to work at a job known to be unsafe or dangerous to his or her health. Your cooperation in detecting hazards, reporting dangerous conditions and controlling workplace hazards is a condition of employment. Inform your supervisor immediately of any situation beyond your ability or authority to correct. Employees will not be disciplined or suffer any retaliation for reporting a safety violation in good faith.

Safety is a High Priority:

The personal safety and health of each employee is the primary concern of DEB Construction, LLC. Prevention of occupationally induced injuries and illnesses is of such consequence that it will be given the highest priority by each level of management. To the greatest degree possible, management will provide all mechanical and physical protection required for personal safety and health, but our employees must bear primary responsibility for working safely. A little common sense and caution can prevent most accidents from occurring.



TABLE OF CONTENTS

SECTION ONE: MANAGEMENT COMMITMENT AND ASSIGNMENT OF RESPONSIBILITY5

CEO'S MESSAGE (SAFETY POLICY STATEMENT):	5
INDIVIDUAL COOPERATION	6
SAFETY PROGRAM GOALS	6
HUMAN RESOURCES MANAGER..... ERROR! BOOKMARK NOT DEFINED.	
DUTIES.....	7

SECTION TWO: SAFETY COMMUNICATION SYSTEM9

COMMUNICATION	9
SAFETY AND HEALTH TRAINING.....	9
PERIODIC SAFETY MEETINGS.....	9
ACCIDENT PREVENTION POLICY POSTING	10

SECTION THREE: SYSTEM FOR ASSURING COMPLIANCE WITH SAFE WORK PRACTICES 11

RESPONSIBILITY FOR TRAINING	11
ACCIDENT PREVENTION POLICY	11
SAFETY RULES FOR ALL EMPLOYEES	11
JOBSITE SAFETY RULES.....	13
SAFETY MEETINGS.....	14

SECTION FOUR: SCHEDULED INSPECTIONS & EVALUATION SYSTEM 15

HAZARD IDENTIFICATION & CORRECTION.....	15
WORKPLACE INSPECTIONS	15
SAFETY AUDITS	15
JOB HAZARD ANALYSIS.....	16

SECTION FIVE: ACCIDENT INVESTIGATION 23

ACCIDENT INVESTIGATION	23
------------------------------	----



SECTION SIX: PROCEDURES FOR CORRECTING UNSAFE & UNHEALTHFUL CONDITIONS24

GENERAL STATEMENT ON SAFETY24
SAFETY AUDITS24
CORRECTIVE ACTION24

SECTION SEVEN: SAFETY AND HEALTH TRAINING AND INSTRUCTION 25

SAFETY AND HEALTH TRAINING.....25
EMPLOYEE RESPONSIBILITY FOR TRAINING25
PERIODIC SAFETY TRAINING MEETINGS.....26

SECTION EIGHT: SAFETY RECORDKEEPING AND DOCUMENTATION.....27

RECORDS27
CAL/OSHA RECORDS REQUIRED27
REPORTING27
IN THE EVENT OF A CAL/OSHA VISIT:.....27

SECTION NINE: DISCIPLINARY PROCEDURES FOR SAFETY VIOLATIONS29

DISCIPLINARY PROCEDURES FOR SAFETY VIOLATIONS.....29

SECTION TEN: FORMS30

ACCIDENT INVESTIGATION REPORT30
SAFETY MEETING MINUTES32
SITE SAFETY INSPECTION.....32



SECTION ONE: **Management Commitment and Assignment of Responsibility**

CEO's Message (Safety Policy Statement):

It is the policy of DEB Construction, LLC that accident prevention shall be considered of primary importance in all phases of operation and administration. It is the intention of DEB Construction, LLC management to provide safe and healthy working conditions for our employees and to establish and insist upon safe practices at all times by all employees.

The prevention of accidents is an objective affecting all levels of DEB Construction, LLC and its operations. It is, therefore, a basic requirement that each supervisor make the safety of all employees an integral part of his or her regular management function. It is equally the duty of each employee to accept and follow established safety regulations and procedures.

Every effort will be made to provide adequate training to employees. However, if an employee is ever in doubt about how to do a job or task safely, it is his or her duty to ask a qualified person for assistance.

Employees are expected to assist management in accident prevention activities. Unsafe conditions must be reported immediately. Fellow employees that need help should be assisted. Everyone is responsible for the housekeeping duties that pertain to their jobs. Every injury that occurs on the job, even a slight cut or strain, must be reported to your immediate supervisor as soon as possible.

The Health and Safety Officer is available to assist you in all areas of safety and accident prevention. Since laws governing these areas have become increasingly complex, utilize the Health and Safety Officer as a resource for solving problems.

Under no circumstances, except emergency trips to the hospital, should an employee leave the work site without reporting an injury. When you have an accident, everyone is hurt. Please work safely. Safety is everyone's business.

Adam A. Vali, CEO



Individual Cooperation

DEB Construction, LLC maintains a safety and health program conforming to the best practices of our field. To be successful, such a program must embody proper attitudes towards injury and illness prevention on the part of supervisors and employees. It requires the cooperation in all safety and health matters, not only of the employer and employee, but between the employee and all co-workers. Only through such a cooperative effort can a safety program, in the best interest of all, be established and preserved. Safety is no accident; think safety and the job will be safer.

Safety Program Goals

The objective of DEB Construction, LLC is to follow a safety and health program that will reduce the number of injuries and illnesses to an absolute minimum, not merely in keeping with, but surpassing the best experience of similar operations by others. Our ultimate goal is zero accidents and injuries.

Health and Safety Officer

The Health and Safety Officer under our program is responsible for the management of the Company safety program. The Health and Safety Officer is appointed by the CEO of DEB Construction, LLC.

The President is responsible for the safety program at the executive level. The Health and Safety Officer will coordinate day to day safety activities at each location. In accordance with DEB Construction, LLC's safety and injury prevention program, the Health and Safety Officer has the responsibility and authority to do the following in the name of DEB Construction, LLC and under the direct supervision of the President:

1. Develop and implement rules of safe practices for each function within the company.
2. Develop and implement safe operating rules for use of electrical and mechanical equipment consistent with manufacturer's recommendations and specifications.
3. Develop and implement a system to encourage employees to report unsafe conditions immediately.
4. Review Accident Investigation reports.
5. Instruct supervisors in safety responsibilities.
6. Develop and implement a program of employee safety education.
7. Conduct scheduled and unscheduled inspections to identify and correct unsafe working conditions. Special attention shall be given to notice of serious concealed dangers.
8. Maintain records of training, periodic inspections, corrective actions and investigations as required by law.



Duties

Health and Safety Officer:

The Health and Safety Officer along with Executive Management must plan, organize, and administer the safety program by establishing policy, setting goals and objectives, assigning responsibility, motivating subordinates, and monitoring results. **DEB Construction** will support and maintain an ongoing Safety and Injury and Illness Prevention Program through the following:

1. Providing clear understanding and direction to all management and employees regarding the importance of safety through the development implementation, monitoring and revision of policy and procedures.
2. Providing financial support for the Injury and Illness Prevention Program through the provision of adequate funds for the purchase of necessary safety materials, safety equipment, proper personal protective equipment, adequate time for employee safety training, and maintenance of tools and equipment.
3. Overseeing development, implementation, and maintenance of the IIPP and other required safety programs.
4. Maintaining a company commitment to accident prevention by expecting safe conduct on the part of all managers, Superintendents, foremen and employees.
5. Holding all levels of management and employees accountable for accident prevention and safety.
6. Reviewing all accident investigations to determine corrective action.

Project Managers:

During the bid phase, and at time subcontracts are awarded, **Project Managers** are in a position to anticipate hazards and help prevent safety problems before they occur. They will support our Safety and Injury and Illness Prevention Program through the following:

1. Anticipating job hazards prior to the commencement of work at any site.
2. Communicating expected safety problems or unique hazards to the foreman and Superintendent.
3. Requiring all subcontractors to comply with applicable local, state, and federal safety regulations.

Superintendents:

Superintendents play a key role in the prevention of accidents on the job. They have direct contact with the foremen and trades and know the safety requirements for various jobs. Safety responsibilities for Superintendents include:

1. Holding foreman accountable for safety.
2. Enforcing safe work practices among all employees.
3. Correcting all unsafe acts and conditions which could cause accidents.



4. Verifying corrective action has been taken regarding safety hazards and accident investigations.
5. Conducting periodic documented inspections of the job sites to identify and correct unsafe actions and conditions which could cause accidents.
6. Investigating injuries and accidents to determine their cause.
7. Acting as a leader in company safety policy and setting a good example by following all safety rules.
8. Becoming familiar with local, state, and federal safety regulations.
9. Assuring that toolbox meetings are held with all employees, and the proceedings are recorded on the company form. A copy shall be sent to the office.

Employees:

Every **employee** is responsible for working safely, both for self-protection and for protection of fellow workers. Employees must also support all company safety efforts. Specific employee safety responsibilities include:

1. If you are unsure how to do any task safely, ask your supervisor.
2. Read and abide by all requirements of the Safety Manual and Injury and Illness Prevention Program (IIPP).
3. Know and follow the Code of Safe Practices and all company safety policies and rules.
4. Wear all required personal protective equipment.
5. Report all accidents and injuries, no matter how minor, to your supervisor immediately.
6. Do not operate any equipment you have not been trained and authorized to use.
7. Report any safety hazards or defective equipment immediately to your supervisor.
8. Do not remove, tamper with or defeat any guard, safety device or interlock.
9. Never use any equipment with inoperative or missing guards, safety devices or interlocks.
10. Never possess, or be under the influence of, alcohol or controlled substances while on the premises.
11. Never engage in horseplay or fighting.
12. Participate in, and actively support, the safety program.

By signing the acknowledgement at the end of this handbook, each employee promises to read and implement this Injury and Illness Prevention Program. If you do not understand any policy, please ask your supervisor.



SECTION TWO: **Safety Communication System**

Communication

Management and Employees shall incorporate two-way communication at all times when discussing matters of Safety. Employers should communicate to employees their commitment to safety and to make sure that employees are familiar with the elements of the safety program. DEB Construction, LLC communicates with its employees orally, in the form of directions and statements from your supervisor, written, in the form of directives and this manual, and by example. If you see a supervisor or manager do something unsafe, please tell that person. We sometimes forget actions speak louder than words.

Health and Safety Training

Training is one of the most important elements of any Injury and Illness Prevention Program. Such training is designed to enable employees to learn their jobs properly, bring new ideas to the workplace, reinforce existing safety policies and put the Injury and Illness Prevention Program into action. Training is required for both supervision and employees alike. The content of each training session will vary, but each session will attempt to teach the following:

- The success of the DEB Construction, LLC Injury and Illness Prevention Program depends on the actions of individual employees as well as a commitment by the Company.
- Each employee's immediate supervisor will review the safe work procedures unique to that employee's job, and how these safe work procedures protect against risk and danger.
- Each employee will learn when Personal Protection Equipment (PPE) is required or necessary, and how to use and maintain the equipment in good condition.
- Each employee will learn what to do in case of emergencies occurring in the workplace.

Supervisors are also vested with special duties concerning the safety of employees. The supervisors are key figures in the establishment and success of DEB Construction, LLC Injury and Illness Prevention Program. They have primary responsibility for actually implementing the Injury and Illness Prevention Program, especially as it relates directly to the workplace. Supervisors are responsible for being familiar with safety and health hazards to which employees are exposed, how to recognize them, the potential effects of these hazards, and rules and procedures for maintaining a safe workplace. Supervisors shall convey this information to the employees at the workplace and shall investigate accidents according to the accident investigation policies contained in this manual.

Periodic Safety Meetings

Field Operations:

DEB Construction, LLC has tailgate safety meetings every Monday (except where Monday is a non-work day, then the meeting shall be held on the next work day). The purpose of the meeting is to convey safety information and answer employee questions. The format of most meetings will be to review, in language understandable to every employee, the content



of the injury prevention program, special work site hazards, serious concealed dangers, and material safety data sheets.

Office Operations:

Each quarter, DEB Construction, LLC holds a companywide safety meeting pertinent to the operations within this environment.

Supervisor are expected to regularly review a portion of the company's safe work practices contained in this booklet, or other safety related information.

Whenever a new practice or procedure is introduced into the workplace, it will be thoroughly reviewed for safety. A sign-up sheet will be passed around each meeting, and notes of the meeting will be distributed afterwards. A copy of the notes will also be placed in the file of each employee who attends the meeting. Employee attendance is mandatory.

Accident Prevention Policy Posting

A copy of this manual will be posted in the work area. It is the policy of DEB Construction, LLC to provide a safe and clean workplace and to maintain sound operating practices. Concentrated efforts shall produce safe working conditions and result in efficient, productive operations. Safeguarding the health and welfare of our employees cannot be stressed too strongly. Accident prevention is the responsibility of all employees. Department heads and supervisors at all levels shall be responsible for continuous efforts directed toward the prevention of accidents. Employees are responsible for performing their jobs in a safe manner. The observance of safe work practices, coupled with ongoing compliance of all established safety standards and codes, will mitigate the risk of accidents and make DEB Construction, LLC a better place to work.



SECTION THREE:

System for Assuring Compliance with Safe Work Practices

Responsibility for Training

Teaching safety is a two-way street. DEB Construction, LLC can preach safety, but only employees can practice safety. Safety education requires employee participation.

Every week, a toolbox safety meeting will be conducted for the purpose of safety instruction. The employees and subcontracted personnel will discuss the application of the Company's Injury and Illness Prevention Program to actual job assignments.

In addition, employees are required to attend each quarter, the DEB Construction, LLC safety meeting.

They will also read and discuss a section of the manual and review application of general safety rules to specific situations. Remember, the following general rules apply in all situations:

Accident Prevention Policy

Each employee has a personal responsibility to prevent accidents. You have a responsibility to your family, to your fellow workers and to the Company. You will be expected to observe safe practices, rules, and instructions relating to the efficient handling of your work.

Your responsibilities include the following:

- Incorporate safety into every job procedure. No job is done efficiently unless it has been done safely.
- Know that disciplinary action may result from a violation of the safety rules.
- Report all injuries immediately, no matter how slight the injury may be.
- Caution fellow workers when they perform unsafe acts.
- Do not take chances.
- Ask questions when there is any doubt concerning safety.
- Do not tamper with anything you do not understand.
- Report all unsafe conditions or equipment to your supervisor immediately.

Safety Rules for All Employees

It is the policy of DEB Construction, LLC that everything possible will be done to protect you from accidents, injuries and/or occupational disease while on the job. Safety is a cooperative undertaking requiring an ever-present safety consciousness on the part of every employee. If an employee is injured, positive action must be taken promptly to see that the employee receives adequate treatment. No one likes to see a fellow employee injured by an accident. Therefore, all operations must be planned to prevent accidents. To carry out this policy, the following rules will apply:



1. All employees shall follow the safe practices and rules contained in this manual and such other rules and practices communicated on the job. All employees shall report all unsafe conditions or practices to their immediate supervisor.
2. The supervisor shall be responsible for implementing these policies by insisting that employees observe and obey all rules and regulations necessary to maintain a safe work place and safe work habits and practices.
3. Good housekeeping must be practiced at all times in the work area. Clean up all waste and eliminate any dangers in the work area.
4. Suitable clothing and footwear must be worn at all times. Personal Protection Equipment (PPE) such as hardhats, respirators, and eye protection will be worn whenever necessary.
5. All employees are expected to participate in a safety meeting conducted by their supervisor.
6. Anyone under the influence (in accordance with DEB Construction's Human Resources policy) of liquor or drugs, including prescription drugs, which might impair motor skills and judgment, shall not be allowed on the job.
7. Horseplay, scuffling, and other acts which tend to have an adverse influence on safety or well-being of other employees are strictly prohibited.
8. Work shall be well planned and supervised to avoid injuries in the handling of heavy materials and while using equipment.
9. No one shall be permitted to work while their ability or alertness is so impaired by fatigue, illness, or other causes that it might expose the employee or others to injury.
10. There will be no consumption of liquor, beer, or illicit drugs on the job.
11. Employees should be alert to see that all guards and other protective devices are in proper places and adjusted and shall report deficiencies promptly to the supervisor.
12. Employees shall not handle or tamper with any electrical equipment, machinery, air or water lines, or pneumatic equipment in a manner not within the scope of their duties.
13. All injuries should be reported to the supervisor so that arrangements can be made for medical or first aid treatment.
14. When lifting heavy objects, use the large muscles of the legs instead of the smaller muscles of the back.
15. Do not throw things, especially material and equipment. Dispose of all waste properly and carefully.
16. Do not wear shoes with thin or torn soles.



Jobsite Safety Rules

Jobsite Safety Rules are those rules, regulations and procedures that are posted throughout the project as Jobsite Safety Rules, listed in this section of this procedure, and more completely stated in State and Federal Occupational Safety and Health Statutes.

All Employees will abide by the following rules:

1. Report unsafe conditions to their immediate supervisor.
2. Promptly report all injuries to their immediate supervisor.
3. Safety Department approved hard hats must be worn at all times in designated areas at jobsites, without exception.
4. Leather Shoes will be worn that support the ankle and guard against puncture and toe wounds. (No tennis shoes or nylon sided hiking boots are allowed.)
5. Shirts are to be worn by all personnel while on Company time. T-shirts shall not have any adverse or unprofessional slogans on them. (No loose or ragged clothing permitted.)
6. Safety glasses must be worn at all times in designated areas at jobsites, without exception.
7. Cut resistant gloves are to be worn at all times when doing the following tasks:
 - a) Unloading of materials
 - b) Distribution of materials
 - c) Installation of materials
 - d) Cleaning of materials with sharp edges
 - e) Using cutting tools like utility knives
8. Lifting belts are to be worn at all times when unloading and distributing materials or lifting heavy products and materials.
9. Blue jeans or some type of heavy work coverall, in good condition, shall be worn to protect the legs. (No Shorts or cut-offs permitted.)
10. Goggles or face shields are compulsory when drilling, burning, chipping, grinding, sawing, grouting and while otherwise required by your Lead Installer. Welding helmets are mandatory for all arc welders. Respiratory equipment, earplugs and lifelines shall be worn as required.
11. To eliminate distractions and help keep everyone alert to their surroundings, radios and radio/tape headsets are not permitted on jobsite.
12. Never operate any machine unless all guards and safety devices are in place and in proper operating condition.
13. Keep all tools in safe working condition. Never use defective tools or equipment.
14. Properly care for and be responsible for all personal protective equipment.
15. Be alert and keep out from under overhead loads.
16. Do not operate machinery if you are not an authorized operator.
17. Do not leave materials in aisles, walkways, stairways, roads or other points of egress.



18. Practice good housekeeping at all times. A clean job is a safe job and it shows that we are professionals who care about our work and fellow employees.
19. Learn how to lift properly to avoid strain.
20. Riding material hoists or other moving equipment is prohibited except on seats provided.
21. Place ladders on a substantial base and do not use ladders with broken, split or missing rungs or rails. All ladders are to extend at least three feet above the landing platform and be securely fastened.
22. Gasoline must be stored and transported in authorized cans only; engines must be shut off when refueling and no smoking anywhere near flammable liquids.
23. Compressed gas cylinders must be in an upright position, tied off and/or secured to a proper carrying cart, stored, and separated by 20 feet.
24. When burning or welding is being done, a fire extinguisher must be close at hand at all times.
25. Employees must be tied off at all times when working from an unguarded surface height more than six feet above the floor or ground level.
26. Compressed air or gas must not be used to dust off hands, face or clothing.
27. Do not climb or walk on scaffold or walkway unless all guardrails, floor boards and toe boards have been completely set in place.
28. The use of, or being under the influence of, intoxicating beverages or illegal drugs while on the job is prohibited.
29. All posted safety rules must be obeyed and must not be removed except by management's regulations and policies.
30. Comply at all times with all known Federal, State and Local Safety laws, employer regulations and policies.
31. Horseplay causes accidents and will not be tolerated.

NOTE: Violations of any of these rules will be cause for immediate disciplinary action.

Safety Meetings

DEB Construction, LLC has tailgate safety meetings for field operations, every week and quarterly companywide safety meetings. The purpose of the meeting is to convey safety information and answer employee questions. The format of most meetings will be to review, in language understandable to every employee, the content of the injury prevention program, special work site hazards, serious concealed dangers, and material safety data sheets. Each month, the supervisor will review a portion of the company's safe work practices contained in this booklet, or other safety related information essential to accomplish the goals of the program.

DEB Construction, LLC requires all its employees to accept responsibility for their own safety, as well as that of others in the workplace. It is the responsibility of every employee to read this manual and to become familiar with the Code of Safe Work Practices and Specific Safety Rules contained in this manual, as well as any posted government Safety Orders.



SECTION FOUR: **Scheduled Inspections & Evaluation System**

Hazard Identification & Correction

This written health and safety plan sets out a system for identifying workplace hazards and correcting them in a timely fashion. Please review it carefully with your supervisor. Remember that safety is everyone's responsibility.

Workplace Inspections

Workplace safety inspections will occur monthly by the Project Manager. Superintendents are responsible for inspecting their work areas daily and recording in a daily log.

In addition, safety inspections will occur when conditions change, or when a new process or procedure is implemented. During these inspections, there will be a review of the Injury and Illness Prevention Program and DEB Construction, LLC code of safe work practices.

Safety Audits

The best method to establish a safer workplace is to study past accidents and Workers' Compensation claims. By focusing on past injuries, DEB Construction, LLC hopes to avoid similar problems in the future. Therefore, whenever there is an accident, and in many cases upon review of past accidents, you may be requested to participate in a safety audit interview. During the interview, there will be questions about the nature of the investigation and the workplace safety related to the incident. Please answer these questions honestly and completely. Also, please volunteer any personal observations and/or suggestions for improved workplace safety.

Based upon the study of past accidents and industry recommendations, a safety training program has been implemented. In addition to other preventative practices, there will be a group discussion of the cause of the accident and methods to avoid the type of accidents and injury situations experienced in the past. Work rules will be reviewed and modified based upon the study of these accidents.

In addition to historical information, workplace safety depends on workplace observation. Your supervisor is responsible for inspecting the work area daily, before and while you are working, but this does not mean you are no longer responsible for inspecting the workplace as well. Each day, before you begin work, inspect the area for any dangerous conditions. Inform your supervisor of anything significant, so other employees and guests are protected.

You may also be given written communications regarding unsafe conditions or serious concealed dangers. Review this communication carefully and adjust your workplace behavior to avoid any danger or hazards. If you are unclear or unsure of the significance of this written communication, contact your supervisor and review your planned actions before starting to work. It is better to wait and check, then to go ahead and possibly cause an injury to yourself and others.

Managers must provide written notice to employees of any serious concealed dangers of which they have actual knowledge. Merely identifying the problem is not sufficient. The danger must



be reported to the appropriate supervisor and the Health and Safety Officer, who will then correct the problem. If the danger cannot be corrected, then all employees will be warned to take protective action so that the danger will not result in any injuries.

Job Hazard Analysis

A Job Hazard Analysis (JHA), also called a job safety analysis (JSA) is a technique which helps integrate accepted safety and health principles and practices into a particular task or job operation to reduce the hazards and risk of injury to workers. In a JHA, each step of the job is evaluated to identify potential hazards and the controls necessary to mitigate those hazards. The terms "job" and "task" are commonly used interchangeably to mean a specific work assignment, such as "operating a hand truck" or "applying pesticides".

A supervisor and/or staff who actually perform a particular task should develop the JHA. Supervisors or their designee should review and maintain the JHA.

Instructions for Conducting a Job Hazard Analysis

1. Include personnel involved in performing the activity or experimentation.

- Discuss what you are going to do and why you are going to do it.
- Explain that you are studying the task, not employee performance.
- Involve the employees in the entire process.

2. Identify university and regulatory requirements that apply to your tasks. Incorporate those requirements into your JHA. This may include PPE, engineering controls, administrative controls, etc.

3. Set priorities.

- Tasks using high hazard chemicals, biologicals, radioactive materials or high hazard equipment.
- Tasks where there have been "close calls" - where an incident occurred but no one got hurt;
- Tasks with the potential to cause serious injuries or illness, even if there is no history of such problems;
- Tasks in which one simple human mistake could lead to severe injury;
- Tasks that are new to your experimentation or have been changed; and
- Tasks complex enough to require written instructions.



4. Identify workplace hazards.

- A job hazard analysis includes identifying the hazards:
 - What hazardous materials are you working with? (Chemical, biological, radioactive, etc.)
 - What physical hazards are you working with? (Electrical, thermal, height, etc.)
 - What can go wrong?
 - What are the consequences?
 - How could it arise?
 - What are other contributing factors?
 - How likely is it that the hazard will occur?

5. Identify hazard control measures.

- Hazard control measures recommended in the analysis must be incorporated into the tasks. Not all hazard controls are equal. Some are more effective than others at reducing the risk.
 - Engineering controls
 - Elimination/minimization of the hazard
 - Substituting processes, equipment, materials
 - Enclosure of the hazard using enclosed cabs, enclosures for noisy equipment, or other means.
 - Isolation of the hazard with interlocks, machine guards, blast shields, welding curtains, or other means.
 - Removal or redirection of the hazard such as with local and exhaust ventilation.
 - Administrative controls
 - Written operating procedures, work permits, and safe work practices
 - Exposure time limitations (used most commonly to control temperature extremes and ergonomic hazards)
 - Monitoring the use of highly hazardous materials
 - Alarms, signs, and warnings
 - Buddy system
 - Training
 - Personal protective equipment
 - Safety Glasses
 - Hearing Protection
 - FR Lab Coats
 - Face Shields

6. Training

- Ensure that affected personnel have reviewed the JHA and understand the hazards and the controls that are required.
- Train all new personnel on the JHA.

7. Review and Record Retention

- Review JHA periodically to ensure accuracy.
 - If updates are made, ensure all affected personnel are informed.
- Training records and JHAs shall be maintained per [the University Record Management and Archive Policy](#).
 - These records may be retained electronically or in hard copy format.

See Figure 1 for an example of a completed JHA

1. In the Task column, identify each step (or task) required to complete the job. Consider preparation and clean-up and be as thorough as possible. Number the steps sequentially.
2. In the Hazard column, write down the hazards associated with the specific step.
3. In the Controls column, write down all safe practices and controls to mitigate the hazards.

Figure 1. Example - Completed JHA for Operation of a Hand Truck.

JOB/TASK/EXPERIMENTAL PROCEDURE SAFETY AND HEALTH ANALYSIS			
DEPARTMENT: PI/SUPERVISOR: Mr. Supervisor		TASK/EXPERIMENTAL PROCEDURE: Using a Hand truck	
PREPARED BY: Ms. Driver			
REVIEWED BY:	DATE APPROVED:	REVIEW/REVISION DATE:	
PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS (PPE). If appropriate attach PPE Assessment: Gloves if necessary			
TRAINING/COMPETENCY REQUIRED: Operation of a Hand Truck PPE			
Step #	TASK ①	POTENTIAL SAFETY AND HEALTH HAZARDS ②	CONTROLS ③
1	Pre-operation Safety Check	<ul style="list-style-type: none"> • Untrained operator 	<ul style="list-style-type: none"> • Training on hand truck design, controls and instrumentation. • Training on the hand truck stability and the proper way to transport, load, and stack on the hand truck.
2	Assembling a load	<ul style="list-style-type: none"> • Rolling the wheels off the edge of ramps and loading docks. 	<ul style="list-style-type: none"> • Stay well back from the edge. • Never turn around on the slope. • When going down a ramp, keep the truck ahead of you. When going up, pull the truck behind you. • Make sure the chisel of the truck is all the way under the load.
3	Operating the Two-wheel Hand truck	<ul style="list-style-type: none"> • Slip/trip/fall 	<ul style="list-style-type: none"> • Slow down for turns. • Make sure that you have enough overhead clearance.
4	Transporting the load	<ul style="list-style-type: none"> • Pinching hands between the truck and other objects. 	<ul style="list-style-type: none"> • Be Alert • Wear gloves to protect your hands. • Strap bulky or dangerous cargo to the truck's frame. • When moving a stack of objects, put the heavier ones on the bottom.
5	Storing the hand truck	<ul style="list-style-type: none"> • Trip hazard 	<ul style="list-style-type: none"> • Store in a safe out of the way area.



**JOB/TASK/EXPERIMENTAL PROCEDURE
SAFETY AND HEALTH ANALYSIS**

DEPARTMENT: PI/SUPERVISOR:	TASK/EXPERIMENTAL PROCEDURE:	
PREPARED BY:		
REVIEWED BY:	DATE APPROVED:	REVIEW/REVISION DATE:

PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS (PPE). If appropriate attach PPE Assessment:

TRAINING/COMPETENCY REQUIRED:

Step #	TASK	POTENTIAL SAFETY AND HEALTH HAZARDS	CONTROLS
1		•	•
2		•	•
3		•	•
4		•	•
5		•	•



SECTION FIVE: Accident Investigation

Accident Investigation

A primary tool used by DEB Construction, LLC to identify the areas responsible for accidents is a thorough and properly completed accident investigation. The results of each investigation will be identified in writing and submitted for review by management and DEB Construction, LLC's insurance risk management advisors. All

A written report should be prepared from notes and diagrams made at the scene. All statements should include the time and date given, and the location onsite where the statement was made. All pictures should be similarly identified. Let people know on tape that they are being recorded. Also, make sure that the names, addresses and day and evening phone numbers of all eyewitnesses are noted or recorded.

If a formal police report or other official investigation is conducted by any government agency, get the name and badge number of the official, or a business card, and find out when a copy of the official report will be available to the public. During this process call the Health and Safety Officer immediately and inform them of the occurrence. The investigation team will be trained prior to any investigations.

If you are requested to make a statement, you have the right to have the Company lawyer attend your statement at no cost to you.

A satisfactory accident report will answer the following questions:

1. **What happened?** The investigation report should begin by describing the accident, the injury sustained, the eyewitnesses, the date, time and location of the incident and the date and time of the report. Remember: who, what, when, where and how are the questions that the report must answer.
2. **Why did the accident occur?** The ultimate cause of the accident may not be known for several days after all the data are analyzed. However, if an obvious cause suggests itself, include your conclusions as a hypothesis at the time you give your information to the person in charge of the investigation.
3. **What should be done?** Once a report determines the cause of the accident, it should suggest a method for avoiding future accidents of a similar character. This is a decision by the Health and Safety Officer. Once a solution has been adopted, it is everyone's responsibility to implement it.
4. **What has been done?** A follow-up report will be issued after a reasonable amount of time to determine if the suggested solution was implemented, and if so, whether the likelihood of any accidents has been reduced. Superintendents are responsible for sharing lessons learned from incidents to other employees.



SECTION SIX: **Procedures for Correcting Unsafe & Unhealthy Conditions**

General Statement on Safety

DEB Construction, LLC strives to maintain a safe place to work and to employ safe workers. It is the responsibility of every employee to conduct their work in a safe and responsible manner. Immediately report all accidents occurring on Company premises to your supervisor.

Each employee has an individual responsibility to prevent accidents. It is to the benefit of all employees and DEB Construction, LLC that you report any situation or condition you believe may present a safety hazard, including any known or concealed dangers in your work area. DEB Construction, LLC encourages you to report your concern either to your immediate supervisor or to the Safety Coordinator.

Safety Audits

The best method to establish a safer workplace is to study past accidents and Workers' Compensation claims. By focusing on past injuries, DEB Construction, LLC hopes to avoid similar problems in the future. Therefore, whenever there is an accident, and in many cases upon review of past accidents, you may be requested to participate in a safety audit interview. During the interview, there will be questions about the nature of the investigation and the workplace safety related to the incident. Please answer these questions honestly and completely. Also, please volunteer any personal observations and/or suggestions for improved workplace safety.

Based upon the study of past accidents and industry recommendations, a safety training program has been implemented. In addition to other preventative practices, there will be a group discussion of the cause of the accident and methods to avoid the type of accidents and injury situations experienced in the past. Work rules will be reviewed and modified based upon the study of these accidents.

In addition to historical information, workplace safety depends on workplace observation. Your supervisors are responsible for inspecting your working area daily before and while you are working, but this does not mean you are no longer responsible for inspecting the workplace also. Each day, before you begin work, inspect the area for any dangerous conditions. Inform your supervisor of anything significant, so other employees and guests are advised.

Corrective Action

Employees and supervisors are to conduct daily safety inspections within their work areas. Any violations of safe work practices or identification of safety hazards should be reported to the supervisor. The supervisor is responsible for reporting and notifying, in writing, any unsafe condition that is reported within their respective area of control, to the Health and Safety Officer.

Superintendents are responsible for making sure the identified safety hazard is corrected quickly and effectively. After a safety hazard is corrected, the Superintendent should sign off the violation to indicate the completion of a corrective action and forward it to the Health and Safety Officer.



SECTION SEVEN: Safety and Health Training and Instruction

Safety and Health Training

Training is one of the most important elements of any Injury and Illness Prevention Program. Such training is designed to enable employees to learn their jobs properly, bring new ideas to the workplace, reinforce existing safety policies and put the Injury and Illness Prevention Program into action.

All workers including managers and supervisors shall have training and instruction on general and job specific safety and health practices. Training and instruction shall be provided as follows:

1. All new hire workers shall receive an initial orientation training that will include our I.I.P.P. Program. Code of Safe work Practices, emergency action plan.
2. To all workers given new job assignments for which training had not been previously provided.
3. Whenever new substances, processes, procedures or equipment are introduced into the workplace and represent new hazards.
4. Whenever the employer is made aware of a new or previously unrecognized hazard.
5. To supervisors to familiarize themselves with the new safety and health hazards to which workers under their immediate direction and control may be exposed.
6. To all workers with respect to hazards specific to each worker's job assignments.
7. Methods to report unsafe work conditions, work practices and injuries.
8. Use of any required personal protective clothing or equipment.
9. Information about chemical hazards to which they could be exposed to and other hazard communication program information.
10. Availability of toilet, hand-washing and drinking water facilities.
11. Provisions for medical services and first aid including emergency procedures.
12. Specific instructions to all workers regarding hazards unique to their job assignment, to the extent that such information was not already covered in other training.

Supervisors are also vested with special duties concerning the safety of employees. The supervisors are key figures in the establishment and success of the DEB Construction, LLC Injury and Illness Prevention Program. They have primary responsibility for actually implementing the Injury and Illness Prevention Program, especially as it relates directly to the workplace. Supervisors are responsible for being familiar with safety and health hazards to which employees are exposed, how to recognize them, the potential effects of these hazards, and rules and procedures for maintaining a safe workplace. Supervisors shall convey this information to the employees at the workplace and shall investigate accidents according to the accident investigation policies contained in this manual.

Employee Responsibility for Training

Teaching safety is a two-way street. DEB Construction, LLC can preach safety, but only employees can practice safety. Safety education requires employee participation. Weekly toolbox meetings will be held for field staff, office personnel will attend quarterly safety meetings.



The employees will discuss the application of the Company's Injury and Illness Prevention Program to actual job assignments. They will also read and discuss a section of the manual and review application of general safety rules to specific situations.

Remember, the following general rules apply in all situations:

- No employee should undertake a job that appears to be unsafe.
- No employee is expected to undertake a job until he/she has received adequate safety instructions and is authorized to perform the task.
- No employee should use chemicals without fully understanding their toxic properties and without the knowledge required to work with these chemicals safely.
- Mechanical safeguards must be kept in place.
- Employees must report any unsafe conditions to the job supervisor.
- Any work-related injury or illness must be reported to the job supervisor.
- Personal Protection Equipment (PPE) must be used when and where required.
- All PPE must be properly maintained.

Periodic Safety Training Meetings

DEB Construction, LLC has safety training meetings every three months. The purpose of the meeting is to convey safety information and answer employee questions. The format of most meetings will be to review, in language understandable to every employee, the content of the injury prevention program, special work site hazards, serious concealed dangers, and material safety data sheets.

Each month, the supervisor will review a portion of the company's safe work practices contained in this booklet, or other safety related information.

Whenever a new practice or procedure is introduced into the workplace, it will be thoroughly reviewed for safety. A sign-up sheet will be passed around each meeting, and notes of the meeting will be distributed afterwards. A copy of the notes will also be placed in the file of each employee who attends the meeting. Employee attendance is mandatory.



SECTION EIGHT: **Safety Recordkeeping and Documentation**

Records

DEB Construction, LLC maintains records of employee training, hazard identification and abatement, and accident investigation. The Health and Safety Officer or HR Manager shall maintain these records.

CAL/OSHA Records Required

The Health and Safety Officer should maintain copies of all required accident investigations and certification of employee safety training. A written report will be maintained on each accident, injury or on-the-job illness requiring medical treatment. A record of each injury or illness is recorded on CAL/OSHA Log and Summary of Occupational Injuries Form 300 according to its instructions. A record of each injury or illness is recorded on CAL/OSHA 300 Log within 7 calendar days. Supplemental records of each injury are maintained on CAL/OSHA Form 101, or Employers Report of Injury or Illness Form.

Every year, a summary of all reported injuries or illnesses is posted no later than February 1, for one month, until April 30, on CAL/OSHA Form 300. The OSHA 300A Summary will be signed by a company official. These records are maintained for five years from the date of preparation.

Reporting

All serious accidents must be reported to Cal/OSHA within 8 hours and to the client (host facility) within 24 hours. In cases of hospitalization or death, a full investigation with copies to governmental authorities will be required. In less serious cases, the investigation report must be presented to the company for disclosure to its insurance carrier and for remedial action at the work site.

In the Event of a Cal/OSHA Visit:

In the event Cal/OSHA visits a DEB Construction jobsite or work location, follow the guidelines below:

- Inform appropriate production personnel (Superintendent, supervisors) of the imminent inspection; advise them to quickly tour their areas and make "last minute" improvements (e.g. Housekeeping, PPE, etc.).
- Contact the Health and Safety Officer
- Examine the inspector's credentials.
- Ask for the purpose of the inspection (Complaint, etc.).
- Determine how you will handle the inspection.
- Let the inspector in to proceed with the inspection, accompanied by appropriate personnel.



- Someone who is familiar with your written programs, as well as the jobsite, should accompany the inspector at all times to ensure questions can be answered appropriately.
- If the inspector identifies any “quick fix” items, have them taken care of immediately or at least by the time the inspector returns again.
- Take before-and-after photographs of every improvement made.
- If the inspector takes photographs or video, consider doing the same concurrently.
- If the inspector conducts noise or air monitoring, consider doing the same concurrently.
- Take good notes during the post-inspection conference; the inspector’s comments are likely to be items that might show up in citations.



SECTION NINE: **Disciplinary Procedures for Safety Violations**

Disciplinary Procedures for Safety Violations

The success of DEB Construction, LLC Injury and Illness Prevention Program is dependent upon the willing participation of its employees. Accident prevention is the key goal of this program. DEB Construction, LLC has established certain safety rules designed to prevent accidents and injuries. Compliance with these rules is mandatory. Documentation will be made as the rules are distributed to the employees. Penalties for violation of these safety rules will conform to the existing DEB Construction, LLC's disciplinary procedures. They are as follows:

(*) **First Offense:**

First Offense will result in a verbal warning by the employees Superintendent or Project Manager. A summary of the proceedings is sent to the Health and Safety Officer and H.R. Manager to be put in the employee's file. A copy is maintained by the Superintendent for their records.

Second Offense:

Written warning by the employee's Superintendent or Project Manager. A copy is given to the employee, and a copy is sent to the Health and Safety Officer and H. R. Manager to be put in the employee's file. The Superintendent also retains a copy.

Third Offense:

Third offense will result in a written warning by the employee's Superintendent or Project Manager. A copy is given to the employee. The **employee may receive three days off without pay**. The Superintendent retains a copy and a copy goes to the Health and Safety Officer and H.R. Manager to be put into the employee's file.

Fourth Offense:

The employee violation is again written up. **Termination is possible.** The employee, Superintendent, Health and Safety Officer and H.R. Manager receive a copy for their records.

(*) *It should be noted that depending on the seriousness of the violation and employee attitude, that immediate termination may occur anytime between the first and fourth offense, as determined by DEB Construction, LLC Management.*

Disciplinary actions for safety violations are determined by management and may lead to termination of employment.



SECTION TEN: Forms

Accident Investigation Report

Date:		
Company:	Location:	Report by:
General Information: <i>(When, where, and who was involved)</i>		
Date:	Time:	Shift:
Department:	Specific location of accident:	
Name of Injured worker:	Job title:	Department Supervisor:
Account of the Accident:		
Describe what happened:		
Analysis of the Accident:		
Direct causes of why the accident happened. <i>(Energy sources, hazardous materials or conditions, machinery involved, etc.)</i>		
Indirect causes or possible contributing factors of why the accident happened. <i>(The actions of people or work conditions)</i>		



Other causes of why the accident happened. (Management policies, personnel, environmental factors)

Conclusions:

What can be done to prevent a similar accident from happening again?

Corrective Actions:

Describe what actions have already been taken to prevent a reoccurrence.

Corrective actions needed:	Assigned to:	Target Date:	Completion Date:

Management Review:

Signature:

Date:



DEB Construction, LLC
 2230 East Winston Road
 Anaheim, California 92806
 Phone: (714) 632-6680
 Fax: (714) 632-5721

Project:

SITE SAFETY INSPECTION

Items Inspected	Pass	Fail	N/A	Neutral
-----------------	------	------	-----	---------

TYPE:	STATUS: Open
TRADE:	LOCATION:
SPEC SECTION:	LINKED DRAWINGS:
DESCRIPTION: Jobsite safety audit must be completed each week	
ATTACHMENTS:	

INSPECTION DETAILS

INSPECTION DATE:	INSPECTOR:
RESPONSIBLE CONTRACTOR:	POINT OF CONTACT:

Housekeeping and Sanitation

1.1	Project work areas are clean, orderly, and free of excess trash and debris Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
1.2	Trash receptables provided and maintained Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
1.3	Aisles and stairs clear of debris Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
1.4	Material and equipment clean, properly stored, and orderly Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				



1.5	Proper number of well maintained portable toilets and hand wash facilities Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
1.6	Scrap material free of protruding nails or other puncture hazards Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Fall Protection and Perimeter Protection

2.1	Fall prevention / protection methods reviewed prior to work start Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
2.2	Perimeter protection installed per policy and maintained throughout Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
2.3	Personal fall arrest systems used properly when needed Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
2.4	Controlled access zones are established with physical barriers and proper signage Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
2.5	Fall arrest system installed and inspected properly by a competent person Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Ladders / Stair in Place and Maintained

3.1	Ladders properly used and maintained / inspected Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------



3.2	Stairs properly constructed and maintained with proper fall protection Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
3.3	Ladders used for access to upper / lower levels are provided with "walk through" rails Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
3.4	Proper access / egress are provided to upper / lower working levels Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
3.5	All access and egress to ladders and stairs clear and free of debris Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Scaffolds Constructed Properly and Maintained

4.1	Scaffold tags in place and inspected daily by a competent person Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
4.2	Scaffolds erected properly and maintained / tied in correctly Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
4.3	Proper access and egress provided Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
4.4	Swing gates provided for vertical ladders Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
4.5	Engineered / stamped drawings reviewed for complex scaffold systems Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A



Floor Openings / Penetrations

5.1	Hole covers are inspected and maintained on a daily basis Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

5.2	All holes greater than 2" in diameter covered, marked, and secured Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

5.3	All holes larger than 1' x 2' are provided with a secondary means of protection Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

5.4	All covers support at least twice the maximum intended load Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

5.5	Guardrails around holes provided with toeboards and maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Excavations Protected Properly / Egress Routes

6.1	Underground utilities reviewed / identified prior to excavating and verified by permit Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

6.2	Ladders provided for access within 25' Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations



Electrical Power (GFCI / Electrical Cords / Power Lines)

8.1	Electrical cords are inspected on a daily basis Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
8.2	Lock out tag out / labeled breakers Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
8.3	Monthly GFI log Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
8.4	All electrical splices are properly protected Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
8.5	Electrical rooms (temporary and permanent) are kept clean and are free of excess materials and debris Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Environmental Issues

9.1	Erosion and sediment control inspected and maintained Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
9.2	Hazardous materials are disposed properly Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
9.3	Site access roads are cleaned on an as needed basis Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				



9.4	Dust control Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
9.5	Secondary containment for fuel storage Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
9.6	Soil contaminants identified and protective measures in place (e.g., PPE, signage, disposal) Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Fire Protection				
10.1	Fire extinguishers provided for every 3,000 sq. ft. of building space, not to exceed 75' travel Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
10.2	Fire extinguishers inspected, tagged, logged monthly and serviced annually Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
10.3	Emergency plan practiced and egress routes maintained Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
10.4	Hot work permits are utilized for all hot work operations and fire watch provided Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
10.5	Evacuation routes posted and all employees are informed of gathering point Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0
 Pass



12.4	Hearing protection used around high noise sources above 90 dB Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

12.5	Proper level one or greater gloves worn at all times Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Pedestrian Protection

13.1	Jobsite fence installed, inspected, and maintained around perimeter of project Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

13.2	Proper signage secured at access points / pedestrian walkways Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

13.3	All visitors check in at field office and utilize proper PPE while onsite Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

13.4	Traffic control procedures in place and maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

13.5	Certified flaggers used for traffic control Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Hand and Power Tools

14.1	Hand and power tools inspected an maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------



14.2	Proper guards in place and maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
14.3	Power tools are grounded or double insulated Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
14.4	Tools are being used for their intended use Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
14.5	Whip lines and/or pins are provided for at all air compressor connections Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Flammable and Combustible Substances				
15.1	Flammable / combustible liquids are stored and handled properly Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
15.2	All containers are properly labeled / protected where required Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
15.3	Fire extinguisher provided within 50' of storage area(s) Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
15.4	No smoking / open flame signage secured near storage area(s) Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
15.5	Flammable / combustible liquids are not stored within 10' from stairwells, elevators, and exits Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A



Signage

16.1	OSHA posters posted on jobsite bulletin board Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

16.2	Exit signs posted and safety awareness / training signs posted throughout the project Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

16.3	Warning signs posted on perimeter fence near gates Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

16.4	Federal posters and anti-harrassment signs posted on jobsite bulletin board Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

16.5	Fire Department Connection signs posted Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
Pass Fail N/A Neutral

Mobile Equipment

17.1	Daily inspection conducted on all mobile equipment and documentation maintained Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

17.2	Fire extinguishers in all mobile equipment Details:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	Fail	N/A

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations



SPECIALIZED BUILDERS

17.3	Owner's manual secured in all mobile equipment Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
17.4	Seat belts functional and worn on mobile equipment (as required) Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
17.5	Proper attachments used on all mobile equipment Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: Pass Fail N/A Neutral



DEB Construction, LLC

Stretching Guidelines

1. Why Stretch?

The benefits of stretching are many:

- A) Readies the body for work activities.
- B) The main benefit is to reduce the tension on the muscle by slowly and gradually lengthening the muscle. The decrease in tension results in relaxation of the muscle and improved flexibility.
- C) By increasing your flexibility your muscles become more limber and as a result the joints are able to move through a greater Range of Motion.
- D) By decreasing the tension of the muscles, tendons and ligaments, the joints are able to move with a greater degree of freedom. Also, by decreasing the tension in our muscles we greatly reduce the amount of energy required by the muscles overall to do their job and therefore prevent muscle fatigue.
- E) Promotes better circulation and improves Range of Motion.
- F) Enhances coordination by allowing easier movements.
- G) Increases body awareness.
- H) Reduces the incidence and severity of injury.
- I) Exercise (stretching) promotes the release of hormones in the body that gives us energy and makes us more alert. The mind is stimulated, and you are more clear-headed and alert, thus making you more ready to face the hazardous environment- the construction jobsite.

2. Stretching Guidelines

- A) Always start in a neutral body position; stand relaxed, with feet shoulder-width apart and knees bent slightly, keeping your back straight by contracting your abdomen. Shoulders are relaxed and back, with chest lifted.
- B) Do the stretches at your own pace and ability. Be sure to work within your own limits.
- C) Stretch to the point of comfortable tension, then relax and hold the stretch. Avoid straining while performing the stretches. Stretching should NOT be painful. If muscles begin to shake, release slightly.
- D) If stretch yields pain in the joint area, back off the movement and make sure the stretching technique is correct. It may be necessary to try another position, or another stretch for the target muscles.
- E) Move into each stretch slowly, holding for 15-30 seconds. Avoid bouncing while stretching.

- F) Keep breathing slow and rhythmical while holding stretches. Avoid holding your breath.

3. Body Stretch

- A) Maintain a neutral body posture.
- B) Raise arms overhead, directly above the shoulders.
- C) Interlock thumbs and spread fingers.
- D) Extend your body upward on toes.
- E) Hold for 15 to 30 seconds.
- F) Repeat three times.

Tip: Make sure you are standing straight up with your head and chest out. Envision yourself reaching as high as you can.



4. Lateral Stretch

- A) Put your left hand out, with arm bent, and reach up over your head as far as you can.
- B) Bend your upper body and head to the right as well and reach down with your right hand.
- C) Hold for 15 to 30 seconds.
- D) Repeat three times.

Tip: Ensure that you bend with your upper body and not your lower body. Do not twist or bend forward or backward. Envision your armpit as high as you can to help with the stretch. Keep both feet on the ground.



5. Posterior Capsule Stretch

(Stretches shoulder and back)

- A) Gently pull on elbow with opposite hand until a stretch is felt in shoulder.
- B) Hold for 15 to 30 seconds.
- C) Alternate to the other elbow and repeat.
- D) Repeat three times.

Tip: Stand erect and place feet at shoulder width. Stretches shoulders and back.



6. Hip Stretch

- A) Place hands just above the back of your hips with your elbows back.
- B) Gently press forward.

- C) Slightly lift your breast bone upward as you hold the stretch.
- D) Hold 15-30 seconds.
- E) Repeat three times.

Tip: If this causes pain at the forearms, modify the stretch by making a fist and placing it on the back of your hips to alleviate pressure at wrists.



7. **Hamstring Stretch**

(Stretches back of thigh and calf)

- A) Assume stride position with right leg forward, legs straight, and feet flat on the floor with toes pointed forward.
- B) Place both hands on right thigh for support.
- C) Slowly bend forward over right knee, keeping head and back straight.
- D) Hold 15 to 30 Seconds.
- E) Push upward with hands and arms for recovery.
- F) Repeat with other leg.

Tip: Lengthening your stride can maximize the stretch.





DEB Construction, LLC

Bloodborne Pathogens

INTRODUCTION

The mission of the Occupational Health and Safety Administration (OSHA) is to save lives, prevent injuries, and protect the health of America's workers. As part of the Department of Labor, OSHA promotes worker safety and health in every workplace in the United States.

This publication includes a model exposure control plan to meet the requirements of the OSHA bloodborne pathogens standard and a model hazard communication program to meet the requirements of the hazard communication standard. The full text of these two OSHA standards, including the requirement for the written documents, is found in 29 CFR 1910.1030 and 29 CFR 1910.1200, respectively.

GENERAL

DEB Construction, LLC will ensure OSHA'S bloodborne pathogens standard protects employees who work in occupations where they are at risk of exposure to blood or other potentially infectious materials. OSHA's hazard communication standard protects employees who may be exposed to hazardous chemicals. Both standards require employers to develop written documents to explain how they will implement each standard, provide training to employees, and protect the health and safety of their workers.

RESPONSIBILITY

The company Human Resources Department is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Human Resources Department will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions.

DEB Construction, LLC has expressly authorized Human Resources, Project Managers and Superintendents to halt any operation of the company where there is danger of work-related injuries and illnesses.



Contents

1. Written Program
2. General Guidelines
3. Policy
4. Program Administration
5. Employee Exposure Determination
6. Methods of Implementation and Control
7. Hepatitis B Vaccination
8. Post-Exposure Evaluation and Follow-Up
9. Administration of Post-Exposure Evaluation and Follow-Up
10. Procedures for Evaluation Surroundings
11. Employee Training
12. Record Keeping
13. Hepatitis B Vaccine Declination



1) Written Program

DEB Construction, LLC will review and evaluate this standard practice instruction on an annual basis, or when operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety, health, that is endorsed and advocated by the highest level of management within this Company and that outlines our goals and plans. This written program will be communicated to all required personnel. It is designed to establish clear goals, and objectives.

2) General Requirements

DEB Construction, LLC shall be responsible for the safe condition of electrical tools and equipment used by its employees, including tools and equipment which may be furnished by employees. DEB Construction, LLC will develop assured grounding operational procedures through the use of this document. After tool and equipment selection and evaluation, equipment will be used and maintained in a safe condition. Superintendents and Project Managers will ensure that the equipment utilized at each job site is maintained in a safe condition.

3) Policy

DEB Construction, LLC is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this goal, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens." The ECP is a key document to assist our organization in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Determination of employee exposure
- Implementation of various methods of exposure control, including: Universal precautions, Engineering and work practice controls, Personal protective equipment, Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards to employees and training
- Recordkeeping
- Procedures for evaluating circumstances surrounding exposure incidents and implementation methods for these elements of the standard are discussed in the subsequent pages of this ECP

4) Program Administration

- The Human Resources Department is responsible for implementation of the ECP. The Human Resources Department will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures.



- Those employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this ECP.
- The Human Resources Department will provide and maintain all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by the standard. The Human Resources Department will ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes.
- The Human Resources Department will be responsible for ensuring that all medical actions required by the standard are performed and that appropriate employee health and OSHA records are maintained.
- The Human Resources Department will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA, and NIOSH representatives.

5) Employee Exposure Determination

The following is a list of all job classifications at our establishment in which all employees have occupational exposure:

Job Title	Department/Location
Project Managers	Office / Jobsite
Project Engineers	Office / Jobsite
Superintendents	Field / Jobsite
Assistant Superintendents	Field / Jobsite
Carpenters	Field / Jobsite
Laborers	Field / Jobsite

NOTE: Part-time, temporary, contract and per diem employees are covered by the bloodborne pathogens standard. The ECP should describe how the standard will be met for these employees.

6) Methods of Implementation & Control

Universal Precautions

All employees will utilize universal precautions. Exposure Control Plan employees covered by the bloodborne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees can review this plan at any time during their work shifts by contacting the Human Resources Department. If requested, we will provide an employee with a copy of the ECP free of charge and within 15 days of the request.

The Human Resources Department is responsible for reviewing and updating the ECP annually or more frequently if necessary, to reflect any new or modified tasks and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.



Engineering Controls, Exposure Control Plan, Work Practices

Engineering controls and this exposure control plan will be used to prevent or minimize exposure to bloodborne pathogens. The specific engineering controls and work practice controls used are listed below:

If Sharp needles are at the jobsite sharp needle disposal containers will be provide and are inspected and maintained or replaced by Superintendent at start of every job or whenever necessary to prevent overfilling. This facility identifies the need for changes in engineering controls and work practices through Review of OSHA records, employee interviews, committee activities, etc.

If bodily fluids are present at the worksite, (bodily fluids include blood, saliva, semen, vaginal fluids, vomit, feces, mucus and urine.) It is imperative that Personal Protective Equipment is worn properly to dispose of any bodily fluids. Immediate cleaning of the site and of the employee must take place. All precautions are necessary to protect the worker and thus cleaners such as bleach, fresh water and towels must be at every jobsite to add in protecting the employee. Should a worksite not be equipped with fresh water antibacterial towels, and antibacterial cleaners must be stored at the work site. Handwashing facilities or stations are required at every jobsite for all sanitary exposure needs. If fresh water is not available hand sanitizing stations will be provided.

Personal Protective Equipment (PPE)

PPE is provided to our employees at no cost to them. Training in the use of the appropriate PPE for specific tasks or procedures is provided by the human resources department. The types of PPE available to employees are as follows:

Hard Hats, Work Gloves, Eye Protection, Ear Protection, etc.

PPE is located at the DEB Construction Corporate Office (Anaheim, CA) and may be obtained through the Human Resources Department.

All employees using PPE must observe the following precautions:

- Wash hands immediately or as soon as feasible after removing gloves or other PPE.
- Remove PPE after it becomes contaminated and before leaving the work area.
- Wear appropriate gloves when it is reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured or contaminated, or if their ability to function as a barrier is compromised.
- Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.



- Never wash or decontaminate disposable gloves for reuse.
- Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eyes, nose, or mouth.
- Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

Housekeeping

Regulated waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded, and closed prior to removal to prevent spillage or protrusion of contents during handling.

Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak proof on sides and bottoms, and appropriately labeled or color-coded.

Sharps disposal containers are available at through onsite upon request (must be easily accessible and as close as feasible to the immediate area where sharps are used).

Bins and pails (e.g., wash or emesis basins) are cleaned and decontaminated as soon as feasible after visible contamination. Broken glassware that may be contaminated is only picked up using mechanical means, such as a brush and dustpan.

7) Hepatitis B Vaccination

The Human Resources Department will provide training to employees on hepatitis B vaccinations, addressing safety, benefits, efficacy, methods of administration, and availability.

The hepatitis B vaccination series is available at no cost after initial employee training and within 10 days of initial assignment to all employees identified in the exposure determination section of this plan. Vaccination is encouraged unless: 1) documentation exists that the employee has previously received the series; 2) antibody testing reveals that the employee is immune; or 3) medical evaluation shows that vaccination is contraindicated.

However, if an employee declines the vaccination, the employee must sign a declination form. Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept at (Corporate Office). Vaccination will be provided by the Human Resources Department.

Following the medical evaluation, a copy of the health care professional's written opinion will be obtained and provided to the employee within 15 days of the completion of the evaluation. It will be limited to whether the employee requires the hepatitis vaccine and whether the vaccine was administered.



8) Post-Exposure Evaluation & Follow-Up

Should an exposure incident occur, contact the Human Resources Department at the following number (714) 632-6680.

An immediately available confidential medical evaluation and follow-up will be conducted by a licensed health care professional. Following initial first aid (clean the wound, flush eyes or other mucous membrane, etc.), the following activities will be performed:

- Document the routes of exposure and how the exposure occurred.
- Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
- Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's test results were conveyed to the employee's health care provider.
- If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
- Assure that the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).
- After obtaining consent, collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status.
- If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.

9) Administration of Post-Exposure Evaluation & Follow-Up

The Human Resources Department ensures that health care professional(s) responsible for employee's hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of OSHA's bloodborne pathogens standard.

The Human Resources Department ensures that the health care professional evaluating an employee after an exposure incident receives the following:

- a description of the employee's job duties relevant to the exposure incident
- route(s) of exposure
- circumstances of exposure
- if possible, results of the source individual's blood test
- relevant employee medical records, including vaccination status (Name of responsible person or department) provides the employee with a copy of the



evaluating health care professional's written opinion within 15 days after completion of the evaluation.

10) Procedures for Evaluation Surroundings

The Human Resources Department will review the circumstances of all exposure incidents to determine:

- engineering controls in use at the time
- work practices followed
- a description of the device being used (including type and brand)
- protective equipment or clothing that was used at the time of the exposure incident (gloves, eye shields, etc.)
- location of the incident (O.R., E.R., patient room, etc.)
- procedure being performed when the incident occurred
- employee's training

The Superintendent will record all percutaneous injuries from contaminated sharps in a Sharps Injury Log. If revisions to this ECP are necessary, the Human Resources Department will ensure that appropriate changes are made. (Changes may include an evaluation of safer devices, adding employees to the exposure determination list, etc.)

11) Employee Training

All employees who have occupational exposure to bloodborne pathogens receive initial and annual training conducted by The Human Resources Department and the Superintendent. Employees shall be re-trained yearly and also on a as needed basis. If the superintendent is observing employees that are not following all safety precautions for bloodborne pathogens the employee will be retrained.

All employees who have occupational exposure to bloodborne pathogens receive training on the epidemiology, symptoms, and transmission of bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- a copy and explanation of the OSHA bloodborne pathogen standard
- an explanation of our ECP and how to obtain a copy
- an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
- an explanation of the use and limitations of engineering controls, work practices, and PPE
- an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
- an explanation of the basis for PPE selection



- information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge
- information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
- an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
- information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
- an explanation of the signs and labels and/or color coding required by the standard and used at this facility
- an opportunity for interactive questions and answers with the person conducting the training session

12) Record Keeping

Training Records

Training records are completed for each employee upon completion of training. These documents will be kept for at least three years at DEB Construction Corporate Office.

The training records include:

- the dates of the training sessions
- the contents or a summary of the training sessions
- the names and job titles of all persons attending the training sessions

Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to the Human Resources Department.

Medical Records

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records."

The Human Resources Department is responsible for maintenance of the required medical records. These confidential records are kept in DEB Construction Anaheim Corporate Office for at least the duration of employment plus 30 years.

Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent to:

DEB Construction
HR Department
2230 E. Winston Rd



Anaheim, CA 92806

OSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by job Superintendents.

Sharps Injury Log

In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in a Sharps Injury Log. All incidences must include at least:

- date of the injury
- type and brand of the device involved (syringe, suture needle)
- department or work area where the incident occurred
- explanation of how the incident occurred

This log is reviewed as part of the annual program evaluation and maintained for at least five years following the end of the calendar year covered. If a copy is requested by anyone, it must have any personal identifiers removed from the report.



13) Hepatitis B Vaccine Declination

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Employee Name: _____

Signed: _____ Date: _____



DEB Construction, LLC

Hazard Communication

INTRODUCTION

About 32 million workers are potentially exposed to one or more chemical hazards on a daily basis. There are an estimated 575,000 existing chemical products and hundreds of new ones being introduced annually. This poses a serious problem for exposed workers and their employer. The OSHA Hazard Communication Standard establishes uniform requirements to make sure that the hazards of all chemicals imported into, produced, or used in U.S. workplaces are evaluated, and that this hazard information is transmitted to all affected workers.

GENERAL

DEB Construction, LLC will ensure that the hazards of all chemicals used within our facility are evaluated, and that information concerning these hazards is transmitted to all employees. This standard practice instruction is intended to address comprehensively the issues of; evaluating the potential hazard of chemicals, communicating information concerning these hazards, and establishing appropriate protective measures for employees.

RESPONSIBILITY

The company Human Resources Department is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Human Resources Department will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions. **DEB Construction, LLC has expressly authorized Human Resources, Project Managers and Superintendents to halt any operation of the company where there is danger of work-related injuries and illnesses.**



Contents

1. Written Program
2. Training Program
3. Labeling Program
4. Safety Data Sheets
5. Non-Routine Tasks
6. Definitions
7. Sample Letter Requesting an SDS



1. Written Program

This standard practice instruction will be maintained in accordance with 29 CFR 1910.1200 and updated as required. Where no update is required this document will be reviewed annually. Effective implementation of this program requires support from all levels of management within DEB Construction, LLC. This written program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of number of workers employed or the number of work shifts. It is designed to establish clear goals, and objectives. DEB Construction, LLC shall:

- a) Annually review and revise this written hazard communication program based on Company operational requirements or, as required by the OSHA Hazard Communication Standard.
- b) Provide a program for proper labeling of containers, describe other needed forms of warning, and detail the use and purpose of safety data sheets (SDS). Describe how employee information and training requirements will be met, to include the following:
 - Maintain a list of the hazardous chemicals known to be present on the job site.
 - This list will be available to all employees through the Safety Director.

The hazards associated with chemicals contained in process or facility piping routed through their work area. The Superintendent or Project Manager of affected employees will oversee this requirement. The Safety Director may be consulted to provide any hazard analysis assistance required. Any unlabeled pipes in their work areas must be immediately reported to the Superintendent for labeling.

DEB Construction, LLC will advise employee(s) of any precautionary measures during normal operating conditions and in foreseeable emergencies. Immediate supervisors of affected employees will oversee this requirement. The Safety Director may be consulted to provide any task hazard analysis assistance required.

DEB Construction, LLC shall make the written hazard communication program available to all employees.

2. Training Program

DEB Construction, LLC shall provide employees with information and training on hazardous chemicals in their work area at the time of their initial assignment, annually, and whenever a new chemical is introduced into their work area that could present a potential hazard.

DEB Construction, LLC employees shall be informed of:

- a) Any operations in their work area where hazardous chemicals are present.



- b) The location and availability of the written hazard communication program, including a list(s) of hazardous chemicals used in their department, and the associated safety data sheet (SDS).

This information will be available through the Safety Director.

Employee hazard communication training at DEB Construction, LLC shall be conducted annually. Newly hired personnel will be briefed on the general requirements of the OSHA hazard communication standard by the Safety Director, as well as duty specific hazards by their Superintendent or Project Manager before they begin any duties within the jobsite. Intra-departmentally transferred personnel will also be briefed on the duty specific hazards by their Superintendent or Project Manager before they begin any duties within the jobsite.

This training will include at least the following:

Methods (subjective and objective) that may be used to detect the presence or release of a hazardous chemical in the work area. This will include; any monitoring conducted by DEB Construction, LLC, continuous monitoring devices, visual appearance, or odor of hazardous chemicals when being released, etc. The physical and health hazards of the chemicals present in the work area {SDS). The measures employees can take to protect themselves from these hazards. Specific procedures DEB Construction, LLC has implemented to protect employees from exposure to hazardous chemicals, to include; appropriate work practices, Standard Practice Instructions, emergency procedures and personal protective equipment. An explanation of the labeling system used at DEB Construction, LLC, the safety data sheet, and how employees can obtain and use the appropriate hazard information. The chemical (formal) and common name(s) of products used, and all ingredients which have been determined to be health hazards. Physical and chemical characteristics of the hazardous chemical including, vapor pressure, and flash point. The physical hazards of the hazardous chemical, which includes the potential for fire, explosion and reactivity. The health hazards of the hazardous chemical, including signs and symptoms of exposure and any medical conditions which are generally recognized as being aggravated by exposure to the chemical. The primary route(s) of entry; inhalation, absorption, ingestion, injection and target organs. The OSHA permissible exposure limit, ACGIH Threshold Limit Value, including any other exposure limit used or recommended by the chemical manufacturer. The hazardous chemical has been found to be a potential carcinogen by the International Agency for Research on Cancer (IARC). Any generally applicable precautions for safe handling and use which are known including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean-up of spills and leaks. Any generally applicable control measures which are known, appropriate engineering controls, work practices, or personal protective equipment. Emergency and first aid procedures. How to determine the date of preparation of the safety data sheet concerned, and/or the last change to it. Specific chemical identity such as the chemical name, Chemical Abstracts Service (CAS) Registry Number, synonyms, or any other information pertinent to the training session.



All training will be documented.

3. Labeling Requirements

Labeling requirements for containers of chemicals used at DEB Construction, LLC, as well as containers of chemicals and hazardous materials being shipped off site.

The following procedures apply:

No unmarked container containing chemicals may be used in conjunction with any duties or operations at DEB Construction, LLC, unless the container is a **portable** container in the control of a specific person for their immediate use. **Container** means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this standard practice instruction, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers. **Immediate use** means that the hazardous chemical will be under the control of, and used only by, the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Employees shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced. Containers containing hazardous chemicals will be properly disposed of and the labels defaced after use. Once they are emptied, chemical containers can never be used in the place of any other container (for example, trash receptacles).

a) Label information for a single chemical (non-mixture).

DEB Construction, LLC will provide the appropriate hazard rating and chemical compatibility charts to label containers. The SDS will be consulted first to determine labeling requirements. The label as a minimum will contain information concerning the personal protective equipment (PPE) required to use or handle the chemical. The DOT hazard class i.e., whether the chemical is flammable, toxic, irritating, corrosive, water reactive, or is an oxidizer. The chemical name **as reflected on the SDS**. The normal operational use of the chemical. Name, address, and emergency phone number of the chemical manufacturer, importer, or other responsible party.

b) Label Information (mixtures).

DEB Construction, LLC will provide the appropriate hazard rating and chemical data to label containers. The SDS's of the chemicals used to create the mixture will be consulted first to determine labeling requirements.

If a mixture has been tested by an approved laboratory as a whole to determine its hazardous characteristics, the results of such testing shall be used to determine whether the mixture is hazardous and to provide the appropriate labeling information.



If a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture. Scientifically valid data such as that provided on the SDS to evaluate the physical hazard potential of the mixture must be used. The Safety Director may be consulted to provide any hazard analysis assistance required.

c) Where Labels are not required

Questions concerning any of the exceptions listed below should be directed to the Safety Director for clarification. DEB Construction, LLC generally should not be affected by these requirements, however they are provided for information and because they are included in the Hazard Communication Standard. The Hazard Communication Standard does not require labeling of the following chemicals:

Labeling of containers of chemicals and hazardous materials being shipped off site designated as hazardous waste. Where these materials are classified as hazardous waste, they fall under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.), and the provisions of 40 CFR. And as such will be subject to regulations issued under that Act by the Environmental Protection Agency. Consult with the Safety and Environmental Administrator where this determination is unclear, or assistance is required.

4. Evaluation and Distribution of Safety Data Sheets to Employees

DEB Construction, LLC shall maintain copies of any Safety Data Sheets that are received with incoming shipments of the sealed containers of hazardous chemicals, shall obtain a Safety Data Sheet for sealed containers of hazardous chemicals received without a Safety Data Sheet if an employee requests the Safety Data Sheet, and shall ensure that the Safety Data Sheets are readily accessible during each work shift.

Master copies of each SDS will be maintained in the corporate office. Right-To-Know (worker) copies can be requested from the Safety Officer.

A request letter will be forwarded to any vender who does not provide an SDS with a product received by this Company. The letter will be forwarded within 10 days of receipt of the material. The format will be the same as the sample letter located at the back of this instruction.

Employees must be familiar with the various sections of the SDS. The Superintendent or the Safety Director are required to review the SDS information yearly with all employees.



5. Non-Routine Tasks

No employee will be allowed to perform tasks that they are not fully trained to accomplish. Non routine tasks will be evaluated prior to accomplishment of work and the related hazard(s) assessed to develop protective measures.

6. Definitions:

Article means a manufactured item:

- a) Which is formed to a specific shape or design during manufacture.
- b) Which has end use function(s) dependent in whole or in part upon its shape or design during end use.
- c) Which does not release, or otherwise result in exposure to, a hazardous chemical, under normal conditions of use.

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Chemical means any element, chemical compound or mixture of elements and/or compounds.

Chemical manufacturer means an employer with a workplace where chemical(s) are produced for use or distribution.

Chemical name means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

Combustible liquid means any liquid having a flashpoint at or above 100 F (37.8C), but below 200 F (93.3C), except any mixture having components with flashpoints of 200 F (93.3C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Common name means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

Compressed gas means:

- a) A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 F (21.1 C); or
- b) A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 F (54.4 C) regardless of the pressure at 70 F (21.1 C); or



- c) A liquid has a vapor pressure exceeding 40 psi at 100 F (37.8 C) as determined by ASTM D-323-72.

Designated representative means any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

Director means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

Distributor means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

Employee means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

Employer means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

Explosive means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

Exposure or exposed means that an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes potential (e.g. accidental or possible) exposure.

Flammable means a chemical that falls into one of the following categories:

- a) **Aerosol**, flammable means an aerosol that, when tested by the method described in 26 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening.
- b) **Gas**, flammable means:
- i) A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less.
 - ii) A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit.
 - iii) Liquid, flammable means any liquid having a flashpoint below 100 F (37.8 C), except any mixture having components with flashpoints of 100 F (37.8 C) or



higher, the total of which make up 99 percent or more of the total volume of the mixture.

iv) Solid, flammable means a solid, other than a blasting agent or explosive as defined in § 190.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

c) **Flashpoint** means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite.

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

Hazardous chemical means any chemical which is a physical hazard or a health hazard.

Hazard warning means any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the hazard(s) of the chemical(s) in the container(s).

Health hazard means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term health hazard includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritant, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A, to 29 CFR 1910.1200 provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix B, 29 CFR 1910.1200 describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of this standard practice instruction.

Identity means any chemical or common name which is indicated on the safety data sheet (SDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the SDS.

Immediate use means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.



Importer means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

Label means any written, printed, or graphic material, displayed on or affixed to containers of hazardous chemicals.

Safety data sheet (SDS) means written or printed material concerning a hazardous chemical which is prepared in accordance with State and Federal standards.

Mixture means any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

Organic peroxide means an organic compound that contains the bivalent -O-O structure, and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Oxidizer means a chemical other than a blasting agent or explosive as defined in 29 CFR 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

Physical hazard means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Produce means to manufacture, process, formulate or repackage.

Pyrophoric means a chemical that will ignite spontaneously in air at a temperature of 130 F (54.4 C) or below.

Responsible party means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

Specific chemical identity means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

Trade secret means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it.

Unstable (reactive) means a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.



Use means to package, handle, react, or transfer.

Water-reactive means a chemical that reacts with water to release a gas that is either flammable or presents a health hazard. Often when the water is heated it goes into a gaseous state allowing oxygen to be released which can help feed a fire.

Work area means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Work place means an establishment, job site, or project, at one geographical location containing one or more work areas.



SAMPLE LETTER REQUESTING AN SDS

DEB Construction, LLC
2230 E. Winston Road
Anaheim, CA 92806-5536

Dear Sir:

OSHA requires employers be provided Safety Data Sheets (SDS's) for all hazardous substances used in their facility, and to make these SDS's available to employees potentially exposed to these hazardous substances.

We, therefore, request a copy of the SDS for your product listed as Stock Number__. We did not receive an SDS with the initial shipment. We also request any additional information, supplemental SDS's, or any other relevant data that your company or supplier has concerning the safety and health aspects of this product.

Please consider this letter as a standing request to your company for any information concerning the safety and health aspects of using this product that may become known in the future.

The SDS and any other relevant information should be sent to us within 10 days. Delays may prevent use of your product. Send the information to the address listed below.

Your cooperation is greatly appreciated. Thank you for your timely response to this request. If you have any questions, please contact me at (714) 632-6680.

Sincerely,

Jean Lee

Human Resource Manager
DEB Construction, LLC
2230 E. Winston Road
Anaheim, CA 92806-5536



DEB Construction, LLC

Electrical Grounding Safety Program

INTRODUCTION

Thousands of workers are injured every year due to improper grounding of portable powered tools. Serious injury or death can be the result of electrocution. OSHA estimates that most of these accidents can be prevented if proper safety precautions at job sites are initiated. This poses a serious problem for exposed workers and their employer. The Electrical Safety Standards established uniform requirements to ensure that the hazards of using tools and electrical appliances at job sites are evaluated, safety procedures implemented, and that the proper hazard information is transmitted to all affected workers.

GENERAL

DEB Construction, LLC will ensure that tool hazards are evaluated. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying tool selection and use deficiencies, evaluating the associated potential electrical hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

RESPONSIBILITY

The company Human Resources Department is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Human Resources Department will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions.

DEB Construction, LLC has expressly authorized Human Resources, Project Managers and Superintendents to halt any operation of the company where there is danger of work-related injuries and illnesses.



Contents

1. Written Program
2. General Requirements
3. Power Tool and Accessories Selection, Evaluation and Condition
4. Power Tool Precautions
5. Methods of Guarding
6. Initial Training
7. Refresher Training



1) Written Program

DEB Construction, LLC will review and evaluate this standard practice instruction on an annual basis, or when operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety, health, that is endorsed and advocated by the highest level of management within this Company and that outlines our goals and plans. This written program will be communicated to all required personnel. It is designed to establish clear goals and objectives.

2) General Requirements

DEB Construction, LLC shall be responsible for the safe condition of electrical tools and equipment used by its employees, including tools and equipment which may be furnished by employees. DEB Construction, LLC will develop assured grounding operational procedures through the use of this document. After tool and equipment selection and evaluation, equipment will be used and maintained in a safe condition. Superintendents and Project Managers will ensure that the equipment utilized at each job site is maintained in a safe condition. Only qualified persons shall work on electrical equipment or systems.



3) Training

The training requirements contained in this section apply to employees who face a risk of electric shock that is not reduced to a safe level by the electrical installation requirements of 1910.303 through 1910.308.

Note: Employees in occupations listed in Table S-4 face such a risk and are required to be trained. Other employees who also may reasonably be expected to face comparable risk of injury due to electric shock or other electrical hazards must also be trained.

Additional requirements for unqualified persons. Employees who are covered this section but who are not qualified persons shall also be trained in and familiar with any electrically related safety practices not specifically addressed by Cal/OSHA 1910.331 through 1910.335 but which are necessary for their safety.

Additional requirements for qualified persons. Qualified persons (i.e. those permitted to work on or near exposed energized parts) shall, at a minimum, be trained in and familiar with the following:

- a) The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment.
- b) The skills and techniques necessary to determine the nominal voltage of exposed live parts, and
- c) The clearance distances specified in 1910.333(c) and the corresponding voltages to which the qualified person will be exposed.

4) Deenergized Parts

"Deenergized parts." Live parts to which an employee may be exposed shall be deenergized before the employee works on or near them, unless the employer can demonstrate that deenergizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations. Live parts that operate at less than 50 volts to ground need not be deenergized if there will be no increased exposure to electrical burns or to explosion due to electric arcs.

Note 1: Examples of increased or additional hazards include interruption of life support equipment, deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area.

Note 2: Examples of work that may be performed on or near energized circuit parts because of infeasibility due to equipment design or operational limitations include testing of electric circuits that can only be performed with the circuit energized and work on circuits that form an integral part of a continuous industrial process in a chemical plant that would otherwise



need to be completely shut down in order to permit work on one circuit or piece of equipment.

Note 3: Work on or near deenergized parts is covered by paragraph (b) of this section.

Energized parts

If the exposed live parts are not deenergized (i.e., for reasons of increased or additional hazards or infeasibility), other safety-related work practices shall be used to protect employees who may be exposed to the electrical hazards involved. Such work practices shall protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object. All electrical equipment should be treated as if it is energized. The work practices that are used shall be suitable for the conditions under which the work is to be performed and for the voltage level of the exposed electric conductors or circuit parts. Specific work practice requirements are detailed in paragraph (c) of this section. Safe work procedures (supervisor/instructor/PPE) for energized electrical equipment will be as follows:

Working on or near exposed deenergized parts

This paragraph applies to work on exposed deenergized parts or near enough to them to expose the employee to any electrical hazard they present. Conductors and parts of electric equipment that have been deenergized but have not been locked out or tagged in accordance with paragraph (b) of this section shall be treated as energized parts, and paragraph (c) of this section applies to work on or near them.

Conductive articles of jewelry and clothing (such as watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) may not be worn if they might contact exposed energized parts. However, such articles may be worn if they are rendered nonconductive by covering, wrapping, or other insulating means.

Lockout and Tagout

While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, the circuits energizing the parts shall be locked out or tagged out or both in accordance with the requirements of this paragraph. The requirements shall be followed in the order in which they are presented (i.e., paragraph (b)(2)(i) first, then paragraph (b)(2)(ii), etc.).

Note 1: As used in this section, fixed equipment refers to equipment fastened in place or connected by permanent wiring methods.

Note 2: Lockout and tagging procedures that comply with paragraphs (c) through (f) of



1910.147 will also be deemed to comply with paragraph (b)(2) of this section provided that:



- [1] The procedures address the electrical safety hazards covered by this Subpart; and
- [2] The procedures also incorporate the requirements of paragraphs (b)(2)(iii)(D) and (b)(2)(iv)(B) of this section.

Procedures

The employer shall maintain a written copy of the procedures outlined in paragraph (b)(2) and shall make it available for inspection by employees and by the Assistant Secretary of Labor and his or her authorized representatives.

Note: The written procedures may be in the form of a copy of paragraph (b) of this section.
1910.333(b)(2)(ii)

Deenergizing equipment

Safe procedures for deenergizing circuits and equipment shall be determined before circuits or equipment are deenergized.

The circuits and equipment to be worked on shall be disconnected from all electric energy sources. They are treated as energized. Control circuit devices, such as push buttons, selector switches, and interlocks, may not be used as the sole means for deenergizing circuits or equipment. Interlocks for electric equipment may not be used as a substitute for lockout and tagging procedures.

Stored electric energy which might endanger personnel shall be released. Capacitors shall be discharged and high capacitance elements shall be short-circuited and grounded, if the stored electric energy might endanger personnel.

Note: If the capacitors or associated equipment are handled in meeting this requirement, they shall be treated as energized. Stored non-electrical energy in devices that could reenergize electric circuit parts shall be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.

Deenergizing equipment

Safe procedures for deenergizing circuits and equipment shall be determined before circuits or equipment are deenergized.

The circuits and equipment to be worked on shall be disconnected from all electric energy sources. They are treated as energized.

Each tag shall contain a statement prohibiting unauthorized operation of the disconnecting means and removal of the tag.

If a lock cannot be applied, or if the employer can demonstrate that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock, a tag may be used without a lock.



A tag used without a lock, as permitted by paragraph (b)(2)(iii)(C) of this section, shall be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by use of a lock. Examples of additional safety measures include the removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device.

A lock may be placed without a tag only under the following conditions:

- Only one circuit or piece of equipment is deenergized, and
- The lockout period does not extend beyond the work shift, and
- Employees exposed to the hazards associated with reenergizing the circuit or equipment are familiar with this procedure.

Verification of deenergized condition

The requirements of this paragraph shall be met before any circuits or equipment can be considered and worked as deenergized.

A qualified person shall operate the equipment operating controls or otherwise verify that the equipment cannot be restarted.

A qualified person shall use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and shall verify that the circuit elements and equipment parts are deenergized. The test shall also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage backfeed even though specific parts of the circuit have been deenergized and presumed to be safe. If the circuit to be tested is over 600 volts, nominal, the test equipment shall be checked for proper operation immediately after this test.

Reenergizing equipment

These requirements shall be met, in the order given, before circuits or equipment are reenergized, even temporarily.

A qualified person shall conduct tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuits and equipment can be safely energized.

Employees exposed to the hazards associated with reenergizing the circuit or equipment shall be warned to stay clear of circuits and equipment.

Each lock and tag shall be removed by the employee who applied it or under his or her direct supervision. However, if this employee is absent from the workplace, then the lock or tag may be removed by a qualified person designated to perform this task provided that:



The employer ensures that the employee who applied the lock or tag is not available at the workplace, and

The employer ensures that the employee is aware that the lock or tag has been removed before he or she resumes work at that workplace.

There shall be a visual determination that all employees are clear of the circuits and equipment.

Confined or enclosed work spaces

When an employee works in a confined or enclosed space, access points (such as a manhole or vault) that contains exposed energized parts, the employer shall provide, and the employee shall use, protective shields, protective barriers, or insulating materials as necessary to avoid inadvertent contact with these parts. Doors, hinged panels, and the like shall be secured to prevent their swinging into an employee and causing the employee to contact exposed energized parts.

Portable ladders

Portable ladders shall have nonconductive siderails if they are used where the employee or the ladder could contact exposed energized parts.

5) High Voltage

Safe Access. All work locations shall be safely accessible whenever work is to be performed.

(b) Employer's Responsibility. The employer shall furnish such safety devices and safeguards as may be necessary to make the employment or place of employment as free from danger to the safety and health of employees as the nature of the employment reasonably permits. The employer shall examine or test each safety device at such intervals as may be reasonably necessary to ensure that it is in good condition and adequate to perform the function for which it is intended. Any device furnished by the employer found to be unsafe shall be repaired or replaced.

(1) Employees shall be instructed to inspect each safety device, tool or piece of equipment, each time it is used and to use only those in good condition. The employer shall require the use of safety devices and safeguards where applicable.



(2) The training shall establish employee proficiency in the work practices required by this section and shall introduce the procedures necessary for compliance with these Orders.

(3) The employer shall ensure that each employee has demonstrated proficiency in the work practices involved before that employee is to be considered properly instructed/trained commensurate with the requirements of this section and Section 3203 of the General Industry Safety Orders.

(c) Qualified Electrical Workers. Only qualified electrical workers shall work on energized conductors or equipment connected to energized high-voltage systems. Except for replacing fuses, operating switches, or other operations that do not require the employee to contact energized high-voltage conductors or energized parts of equipment, clearing "trouble" or in emergencies involving hazard to life or property, no such employee shall be assigned to work alone. Employees in training, who are qualified by experience and training, shall be permitted to work on energized conductors or equipment connected to high-voltage systems while under the supervision or instruction of a qualified electrical worker.

(d) Observers. During the time work is being done on any exposed conductors or exposed parts of equipment connected to high-voltage systems, a qualified electrical worker, or an employee in training, shall be in close proximity at each work location to:

(1) act primarily as an observer for the purpose of preventing an accident, and

(2) render immediate assistance in the event of an accident. Such observer will not be required in connection with work on overhead trolley distribution circuits not exceeding 1,500 volts D.C. where there is no conductor of opposite polarity less than 4 feet there from, or where such work is performed from suitable tower platforms or other similar structures.

(e) Information Transfer.

(1) Communication between employers. Before work begins, employers shall communicate to each other the following:

(2)



- (A) The characteristics of the installation that are related to the safety of the work to be performed and are listed in subsections (f)(1)(A) through (f)(1)(E) of this section.
 - (B) Conditions that are related to the safety of the work to be performed, that are listed in subsections (f)(1)(F) through (f)(1)(H) of this section.
 - (C) Information about the design and operation of the installation in order to conduct the assessments required by this section.
 - (D) Any other information about the design and operation of the installation that is requested and is related to the protection of the employees.
 - (E) Unique hazardous conditions related to the job.
 - (F) Any unanticipated hazardous conditions discovered or found while performing work. Employers shall provide this information to the other employer within 2 working days after discovering the hazardous condition.
 - (G) The employers shall coordinate their work rules and procedures so all employees are protected as required by these Orders.
- (2) The employer shall ensure that each of their respective employees are instructed in the hazardous conditions relevant to the employee's work as specified in subsection (e)(1) of this section.
- (f) Existing Characteristics and Conditions.
- (1) Existing characteristics and conditions of electric lines and equipment that are related to the safety of the work to be performed shall be determined before work on or near the lines or equipment is started. Such characteristics and conditions include, but are not limited to:
 - (A) Signs are affixed to equipment warning operators to stay away from overhead power lines.
 - (B) The nominal voltages of lines and equipment,
 - (C) The maximum switching-transient voltages,
 - (D) The presence of hazardous induced voltages,
 - (E) The presence of protective grounds and equipment grounding conductors,



- (F) The locations of circuits and equipment, including electric supply lines, communication lines, and fire protective signaling circuits,
 - (G) The condition of protective grounds and equipment grounding conductors,
 - (H) The condition of poles, and
 - (I) Environmental conditions relating to safety.
 - (g) Job Briefing.
- (1) Before each job.
- (A) In assigning an employee or a group of employees to perform a job, the employer shall provide the employee in charge of the job with all available information that relates to the determination of existing characteristics and conditions required by subsection (f).
 - (B) The employer shall ensure that the employee in charge conducts a job briefing that meets (g)(2) Subjects to be covered, (g)(3) Number of briefing, (g)(4) Extent of the briefing, of this section with the employees involved before they start each job.



(C) Insulating Equipment

(1) Insulating equipment designed for the voltage levels to be encountered shall be provided and the employer shall ensure that they are used by employees as required by this section. This equipment shall meet the electrical and physical requirements contained in the standards for marking, inspection, performance and testing.

(2) Whenever rubber insulating gloves are used, they shall be protected by outer canvas or leather gloves.

(3) Insulating equipment fabricated of material other than rubber shall provide electrical and mechanical protection at least equal to that of rubber equipment.

(4) The employer is responsible for the periodic visual and electrical re-testing of all insulating gloves, sleeves and blankets.

(5) Marking of insulated equipment and/or PPE with the latest test date or the next required testing date.

Defective insulated equipment is removed from service.

(2) Subjects to be covered. The briefing shall cover at least the following subjects: hazards associated with the job, work procedures involved, special precautions, energy-source controls, and personal protective equipment requirements.

(3) Number of briefings.

(A) If the work or operations to be performed during the work day or shift are repetitive and similar, at least one job briefing shall be conducted before the start of the first job of each day or shift.

(B) Additional job briefings shall be held if significant changes, which might affect the safety of the employees, occur during the course of the work.

(4) Extent of briefing.

(A) A brief discussion is satisfactory if the work involved is routine and if the employees, by virtue of training and experience, can reasonably be expected to recognize and avoid the hazards involved in the job.

(B) A more extensive discussion shall be conducted:

1. If the work is complicated or particularly hazardous, or



2. If the employee cannot be expected to recognize and avoid the hazards involved in the job.

(5) Minimum Approach Distance

(a) The employer shall establish minimum approach distances using one of the following methods:

(1) Distances no less than computed by Table 2940.2-1 for AC Systems or Table 2940.2-6 for DC Systems using maximum anticipated per-unit transient overvoltage determined by an engineering analysis.

(2) No later than October 1, 2018 for voltages over 72.5 kilovolts, the employer shall determine the maximum anticipated per-unit transient overvoltage, phase-to-ground, through an engineering analysis.

6) Low Voltage

(a) These Low-Voltage Electrical Safety Orders apply to all electrical installations and electrical equipment operating or intended to operate on systems of 600 volts, nominal, or less and to all work performed directly on or in proximity to such electrical installations, equipment or systems in all places of employment in the State of California as defined in Labor Code Section 6303.

Barriers or barricades are used at access points.

(1) These Orders do not apply to:

(A) Installations or conductors and equipment in ships, watercraft, railway rolling stock, aircraft, or automotive vehicles other than mobile homes and recreational vehicles.

(B) Installations of conductors and equipment in vehicles, operating at less than 50 volts or to their ignition system, unless otherwise specified.

(C) Installations of conductors, equipment, and associated enclosures subject to the jurisdiction of the California Public Utilities Commission, that are owned, operated and maintained by an electric, communication or electric railway utility.

(2) Only qualified persons shall work on electrical equipment or systems.



(3) Only qualified persons shall be permitted to perform any function in proximity to energized overhead conductors unless means to prevent accidental contact have been provided in accordance with Articles 3 and 4 of these orders.

(4) Work shall not be performed on exposed energized parts of equipment or systems until the following conditions are met:

- (1) Responsible supervision has determined that the work is to be performed while the equipment or systems are energized.
- (2) Involved personnel have received instructions on the work techniques and hazards involved in working on energized equipment.
- (3) Suitable personal protective equipment and safeguards (i.e., approved insulated gloves or insulated tools) are provided and used.

(5) After the required work on an energized system or equipment has been completed, an authorized person shall be responsible for:

- (1) Removing from the work area any temporary personnel protective equipment, and
- (2) Reinstalling all permanent barriers or covers after work has been completed.

7) Power Tool and Accessories Selection, Evaluation and Condition

The greatest hazards posed by power tools usually results from misuse and/or improper maintenance. Tool selection sometimes is not considered a priority when arrangements are made to begin work. All employees will consider the following when selecting tools:

- Is the tool correct for the type of work to be performed?
- Are grounding methods sufficient when working in wet conditions?
- Is the grounding terminal present on the plug?
- Is the polarity of connections correct? No grounded conductor can be attached to any terminal or lead which results in a reversed designated polarity.
- Are grounding terminals or grounding-type devices on receptacles, cord connectors, or attachment plugs used for the intended purpose?
- Are grounding terminals or grounding-type devices on receptacles, cord connectors, or attachment plugs defeated in any way?
- Are all receptacles and attachment caps or plugs tested for correct attachment of the equipment grounding conductor? The equipment grounding conductor must be connected to its proper terminal.
- Are grounding terminals or grounding-type devices on receptacles, cord connectors, or attachment plugs defeated in any way?



- Are all 12 volt, single-phase 15 and 20 ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure, equipped with approved ground-fault circuit interrupters for personnel protection?
- Are conductors used as a grounded conductor identifiable and distinguishable from all other conductors?
- Is each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, visually inspected daily before use for external defects, such as deformed or missing pins or insulation damage, and for indications of possible internal damage? (Exception - cord sets and receptacles which are properly fixed and not exposed to damage).
- Is equipment found damaged or defective removed from service until repaired or replaced?
- Are guards installed properly and in good condition?
- Are all required tests performed?
 - Before first use;
 - Before equipment is returned to service following repairs;
 - Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over; and;
 - At intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage must be tested at intervals not to exceed 6 months.
 - The employer shall not make available or permit the use by employees of any equipment which has not met the requirements
- Are all required tests documented, maintained and include the following?
 - Identity of all equipment having passed the test?
 - The last date tested or the testing interval?
 - Is the test documentation maintained until replaced by a more current record?
 - Does the tool create sparks or heat? Has this been considered when working around flammable substances?
 - Are cutting tools sharp? Dull tools are more hazardous than sharp ones.
 - Is the tool used on the proper working surface? Tools used on dirty or wet working surfaces can create a multitude of hazards.
 - Are tools stored properly when not being used? Saw blades, and like sharp tools should be stored so that sharp edges are directed away from aisles and coworkers.

8) Power Tool Precautions

Power tools can be hazardous when improperly used; DEB Construction, LLC uses several types. The following precautions will be taken by employees of DEB Construction, LLC to prevent injury.



- Power tools will always be operated within their design limitations.
- Eye protection, gloves and safety footwear are recommended during operation.
- Tools will be stored in an appropriate dry location when not in use.
- Tool work will only be conducted in well illuminated locations.
- Tools will not be carried by the cord or hose.
- Cords or hoses will not be yanked to disconnect it from the receptacle.
- Cords and hoses will be kept away from heat, oils, and sharp edges or any other source that could result in damage. Cords will be inspected daily for damages.
- Ground-fault circuit interrupters. All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground-fault circuit interrupters for personnel protection. Receptacles on a two-wire, single-phase portable or vehicle-mounted generator rated not more than 5kW, where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces, need not be protected with ground-fault circuit interrupters.
- Tool will be disconnected when not in use, before servicing, and when changing accessories such as blades, bits and cutters.
- When servicing energized electrical equipment it must be non-conductive.
- Observers will be kept at a safe distance at all times from the work area.
- Work will be secured with clamps or a vice where possible to free both hands to operate tools.
- To prevent accidental starting, employees should be continually aware not to hold the start button while carrying a plugged-in tool.
- Tools will be maintained in a clean manner and properly maintained in accordance with the manufacturer's guidelines.
- Ensure that proper shoes are worn and that the work area is kept clean to maintain proper footing and good balance.
- Ensure that proper apparel is worn. Loose clothing, ties, or jewelry can become caught in moving parts.
- Where lack of illumination or an obstruction precludes observation of the work to be performed, employees may not perform tasks near exposed energized parts. Employees may not reach blindly into areas which may contain energized parts.



9) Ground-fault protection

The employer shall use either ground fault circuit interrupters as specified in paragraph (b)(1)(ii) of this section or an assured equipment grounding conductor program as specified in paragraph (b)(1)(iii) of this section to protect employees on construction sites. These requirements are in addition to any other requirements for equipment grounding conductors.

Ground-fault circuit interrupters

All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground-fault circuit interrupters for personnel protection. Receptacles on a two-wire, single-phase portable or vehicle-mounted generator rated not more than 5kW, where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces, need not be protected with ground-fault circuit interrupters.

10) Methods of Guarding

One or more methods of guarding shall be provided where required to protect the operator and other employees in the area from hazards such as those created by point of operation, in running nip points, rotating parts, flying chips and sparks. Examples of guarding methods are; barrier guards, two-hand tripping devices, electronic safety devices, etc. The guard shall be such that it does not offer an accident hazard in itself. Employees will:

- Inspect tools without guards for signs of guard removal. If it is evident that a guard is required, tag-out the tool and obtain a replacement. Tools will not be energized during inspection.
- Inspect tools having guards for proper operation and maintenance prior to use.
- Tools will not be energized during inspection.
- Never remove a guard during use.

11) Initial Training

Training shall be conducted prior to job assignment. DEB Construction, LLC shall provide training to ensure that the grounding requirements, purpose, function, and proper use of tools to be used in the normal function of their jobs is understood by employees and that the knowledge and skills required for the safe application, and usage is acquired by employees. This standard practice instruction shall be provided to and read by all employees receiving training. The training shall include, as a minimum the following:

- Grounding requirements for tools and associated site electrical equipment.
- Types of tools appropriate for use.



- Recognition of applicable electrical hazards associated with work to be completed.
- Tool selection requirements.
- Procedures for removal of an electrical tool/accessory from service.
- All other employees whose work operations are or may be in an area with tools which could present a hazard to anyone other than the user, will be instructed to an awareness level concerning hazards.

12) Refresher Training

This standard practice instruction shall be provided to and read by all employees receiving refresher training. The training content shall be identical to initial training. Refresher training will be conducted on a required basis or when the following conditions are met, whichever event occurs sooner.

- Retraining shall be provided for all authorized and affected employees whenever there is a change (or prior to change) in their job assignment, a change in the type of tools being used, or when a known hazard is added to the work environment.
- Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever DEB Construction, LLC has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of tools.



DEB Construction, LLC

Lockout Tagout Program

INTRODUCTION

Control of Hazardous energy is the purpose of the Lockout Tagout Program. This program establishes the requirements for isolation of kinetic and potential electrical, chemical, thermal, hydraulic, pneumatic, gravitational, and any other recognized energy prior to the cleaning, repairing, servicing, setting-up, unjamming, and adjusting of machines and equipment in which the unexpected energization/start-up of the machines or equipment, or release of stored energy could cause injury to employees.

GENERAL

DEB Construction, LLC will ensure that the Lockout Tagout Program is evaluated to the Cal Osha standards annually. This standard practice instruction is intended to provide applicable training at time of initial hire. Retraining shall be held as often as determined necessary and when new processes and equipment deem the need to modify and/or develop existing or new ECPs.

RESPONSIBILITY

The company Human Resources Department is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Human Resources Department will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions.

DEB Construction, LLC has expressly authorized Human Resources, Project Managers and Superintendents to halt any operation of the company where there is danger of work-related injuries and illnesses.



Contents

1. Training
2. Preparation for Lockout Tag out Procedures
3. Routine Maintenance & Machine Adjustments
4. Repetitive Process Machines
5. SOP: General Lockout Tagout Procedures
6. SOP: Release from Lockout/Tagout
7. SOP: LOTO Procedure for Electrical Plug in-type Equipment
8. SOP: LOTO Procedures Involving More than One Employee
9. SOP: Management's Removal of Lockout Tagout
10. Periodic Inspection
11. Contractors
12. Jobsite Procedures
13. Attachment A: Sample Energy Control Procedure



1. Training

Authorized Employee Training

All affected employees will be trained to use the applicable Lockout Tagout Energy Control Procedures (ECPs). The training will be provided to applicable new hires at time of initial hire. Retraining shall be held as often as determined necessary and when new processes and equipment deem the need to modify and/or develop existing or new ECPs.

The training will consist of the following:

1. Requirements of the Company's Lock Out Tagout program
2. Review of Specific Procedures for machinery, equipment and processes
3. Location and use of the Company's equipment-specific Energy Control Procedures
4. Applicable hazardous energy sources
5. Type and magnitude of the energy available in the workplace
6. The methods and means necessary for energy isolation and control
7. Clarification of any questions or concerns
8. Student demonstration of understanding of subject matter

Affected Employee Training

Applies to all support personnel, that will or may be, in areas where Authorized Employees are performing Lockout Tagout activities.

Affected personnel training will consist of:

1. Purpose and use of the lockout procedures
2. Only trained and Authorized employees will repair, replace or adjust machinery, equipment or processes
3. Affected employees may not remove Locks, locking devices or tags from machinery, equipment or circuits.
4. Prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out

Other Employee Training

Other employees will be made aware of the following:

1. Only trained and authorized Employees will perform or interact with any lockout tagout activities
2. Other Employees may not remove Locks, locking devices or tags from machinery, equipment or circuits



2. Preparation for Lockout and Tagout Procedures

A Lockout Tagout survey has been conducted to locate and identify all energy sources for applicable equipment and activities captured by this policy. The information gathered in this survey was used to develop ECPs. Additionally, dual or redundant controls have been identified and/or removed.

NOTE: DEB Construction performs all work activities at construction job sites where many potential activities and lockout tagout applies will be dynamic and ever-changing.

DEB Construction does have some standardized activities that can be identified and documented on a formalized ECP, such as, set up activities where saw blades and excavator equipment buckets will require change out or change over.

An Energy Control Procedure (ECP) has been developed for each piece of equipment and machinery that was identified in the survey as standardized. These ECPs describe the energy sources, location of isolation devices (disconnects, valves, etc.), type of isolation device, special hazards and special safety procedures necessary to isolate such energy sources/hazards to bring the machinery or equipment to zero mechanical state. The ECPs will be verified at each use to ensure their effectiveness. If an ECP does not exist for a piece of equipment, machinery and process, one will be developed prior to conducting work activities that will or may expose employees to hazardous energy. As repairs and/or renovations of existing systems are made, standardized controls will be used.

Equipment-specific ECPs are maintained electronically by the Program Administrator and all Authorized personnel have been provided hard copies of all applicable ECPs.

3. Routine Maintenance & Machine Adjustments

Lockout Tagout procedures are not required if equipment must be operating for proper adjustment. This rare exception may be used only by trained and qualified employees when specific procedures have been developed to safely protect employees from the hazards of the energized machinery or equipment. All consideration shall be made to prevent the need for an employee to break the plane of a normally guarded area of the equipment with their hands or other body parts, instead using extension tools and other devices.

1. Minor tool changes and adjustments, and other minor servicing activities, which take place during normal daily operations are not covered by the requirements of this program if they are routine, repetitive, and integral to the use of the equipment or machinery for production, provided that the work is performed using alternative measures which provide effective protection.
2. Work on cord and plug-connected electric equipment, for which exposure to the hazards of unexpected energization/start-up of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the work.



3. Where an employer has a uniform system with unique and personally identifiable locks designed for lockout, that are placed on the source of energy, accident prevention signs or tags are not required.

Repetitive Process Machines

DEB Construction at the time of development of this program, did not have any repetitive process machines. Regardless, the following policy will be retained in this program in the event that, for whatever reason, repetitive process machinery is acquired and incorporated into DEB Construction's work processes.

On repetitive process machines, such as numerical control machines, which require power or current continuance to maintain indexing and where repair, adjustment, testing, or setting-up operations cannot be accomplished with the prime mover or hazardous energy source disconnected, such operations may be performed under the following conditions:

1. The operating station where the machine may be activated must always be under the control of a qualified operator or craftsman.
2. All participants must be in clear view of the operator or in positive communication with each other.
3. All participants must be beyond the reach of machine elements which may move rapidly and present a hazard to them.
4. Where machine configuration or size requires that the operator leave his control station to install tools, and where machine elements exist which may move rapidly if activated, such elements must be separately locked out by positive means.
5. During repair procedures where mechanical components are being adjusted or replaced, the machine shall be de-energized or disconnected from its power source.

"Participant" is defined as any other person(s) engaged in the repair, adjustment, testing, or setting up operation in addition to the qualified operator or craftsman having control of the machine operating station.

4. Locks, Hasps, and Tags

All Authorized individuals are assigned a sufficient quantity and type of locks and lockout devices necessary to allow control of all potential energy sources. Each Authorized individual will have individualized keys, preventing one employee from removing another's lock. In some cases, more than one lock, hasp and tag are needed to completely de-energize equipment and machinery. Additional locks may be acquired from the job site foreman on a shift-by-shift basis. All locks and hasps shall be uniquely identifiable to a specific employee.

Signs, tags, padlocks, and seals shall have means by which they can be readily secured to the controls. Tagout device attachment means shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds.



5. SOP: General Lockout Tagout Procedures

Before cleaning, repairing, servicing, setting-up, adjusting, and unjamming prime movers, the following procedures will be utilized to place the machinery and equipment in a neutral or zero mechanical state.

- **Preparation for Shutdown**

Before Authorized employees turn off a machine or piece of equipment, the Authorized employee will have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the means to control the energy. Additionally, he/she will notify all affected employees that the machinery, equipment and/or process will be out of service.

All affected employees will be directly notified of the impending shutdown.

- **Machine or Equipment Shutdown**

The machine or equipment will be turned off or shut down using the specific procedures for that specific machine. An orderly shutdown will be utilized to avoid any additional or increased hazards to employees as a result of equipment de-energization.

If the machinery, equipment or process is in operation, follow normal stopping procedures (depress stop button, open toggle switch, etc.). Move switch or panel arms to "Off" or "Open" positions and close all valves or other energy isolating devices so that the energy source(s) is disconnected or isolated from the machinery or equipment.

- **Machine or Equipment Isolation**

All energy control devices that are needed to control the energy to the machine or equipment will be physically located and operated in such a manner as to isolate the machine or equipment from the energy source.

- **Lockout or Tagout Device Application**

Lockout or tagout devices will be affixed to energy-isolating devices by authorized employees. Lockout devices will be affixed in a manner that will hold the energy isolating devices in the "safe" or "off" position.

- **Full Employee Protection**

When a tagout device is used on an energy isolating device which is capable of being locked out, the tagout device shall be attached at the same location that the lockout device would have been attached, and the employer shall demonstrate that the tagout program will provide a level of safety equivalent to that obtained by using a lockout program.

In demonstrating that a level of safety is achieved in the tagout program which is equivalent to the level of safety obtained by using a lockout program, DEB Construction will demonstrate full compliance with all tagout-related provisions of this program together with such additional elements as are necessary to provide the equivalent safety available from the use of a lockout device. Additional means to be considered as part of the demonstration of



full employee protection will include the implementation of additional safety measures such as the removal of an isolating circuit element, blocking of a controlling switch, opening of an extra disconnecting device, or the removal of a valve handle to reduce the likelihood of inadvertent energization.

Lock and tag out all energy devices by use of hasps, chains and valve covers with an assigned individual lock.

- **Stored Energy**

Following the application of the lockout or tagout devices to the energy isolating devices, all potential or residual energy will be relieved, disconnected, restrained, and otherwise rendered safe.

Where the re-accumulation of stored energy to a hazardous energy level is possible, verification of isolation will be continued until the maintenance or servicing is complete.

Release stored energy (capacitors, springs, elevated members, rotating fly wheels, and hydraulic/air/gas/steam systems) must be relieved or restrained by grounding, repositioning, blocking and/or bleeding the system.

- **Verification of Isolation**

Prior to starting work on machines or equipment that have been locked or tagged out, the authorized employees will verify that isolation or de-energization of the machine or equipment have been accomplished.

After assuring that no Employee will be placed in danger, test all lock and tagouts by following the normal start up procedures (depress start button, etc.).

Caution: After test, place controls in neutral or OFF position.

- **Shift Change and / or Extended Lockout - Tagout**

Should the shift change before the machinery or equipment can be restored to service, the lock and tag out must remain. If the task is reassigned to the next shift, those Authorized employees must lock and tag out before the previous shift may remove their lock and tag.

6. SOP: Release from LOCKOUT/TAGOUT

Before lockout or tagout devices are removed and the energy restored to the machine or equipment, the following actions will be taken:

1. The work area will be thoroughly inspected to ensure that nonessential items have been removed and that machine or equipment components are operational.



2. The work area will be checked to ensure that all employees have been notified, safely positioned or removed. Before the lockout or tagout devices are removed, the affected employees will be notified that the lockout or tagout devices are being removed.
3. Each lockout or tagout device will be removed from each energy isolating device by the employee who applied the device.

7. SOP: LOTO Procedure for Electrical Plug in-Type Equipment

This procedure covers all Electrical Plug-Type Equipment such as Battery Chargers, Office Equipment, Powered Hand Tools, Powered Bench Tools, Fans, etc.

When working on, repairing, or adjusting the above equipment, the following procedures must be utilized to prevent accidental or sudden start up:

1. Unplug Electrical Equipment from wall socket or in-line socket.
2. Attach "Do Not Operate" Plug Box & Lock with Tag on end of power cord. An exception is granted to not lock & tag the plug if the cord & plug remain in the exclusive control of the employee working on, adjusting or inspecting the equipment.
3. Test equipment to assure power source has been removed by depressing the "Start" or "On" Switch.
4. Perform required operations.
5. Replace all guards removed.
6. Remove Plug Box & Lock with Tag.
7. Inspect power cord and socket before plugging equipment into power source. Any defects must be repaired before placing the equipment back in service.

NOTE: Occasionally used equipment may be unplugged from power source when not in use.

8. SOP: LOTO Procedures Involving More Than One Employee

Group Lockout or Tagout

When servicing and/or maintenance is performed by a crew, craft, department or other group, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the utilization of a personal lockout or tagout device.

Group lockout or tagout devices shall be used in accordance with the Company's established ECP(s) and also in accordance with requirements that include, but are not necessarily limited to, the following:

1. Primary responsibility shall be vested in an authorized employee for a set number of employees working under the protection of a group lockout or tagout device (such as an operations lock);



2. Provision shall be made for the Authorized employee to ascertain the exposure status of individual group members with regard to the lockout or tagout of the machine or equipment;
3. When more than one crew, craft, department, etc. is involved, assignment of overall job-associated lockout or tagout control responsibility shall be given to an authorized employee designated to coordinate affected work forces and ensure continuity of protection; and
4. Each authorized employee shall affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when he/she begins work and shall remove those devices when he/she stops working on the machine or equipment being serviced or maintained.

9. SOP: Management's Removal of Lockout Tagout

Only the Employee that locks and tags out machinery, equipment or processes may remove his/her lock and tag. However, should the Employee leave the facility before removing his/her lock and tag, the Maintenance Manager may remove the lock and tag. The Maintenance Manager must be assured that all tools have been removed, all guards have been replaced and all Employees are free from any hazard before the lock and tag are removed and the machinery, equipment or process are returned to service. Notification of the employee who placed the lock is required prior to lock removal.

10. Periodic Inspection

DEB Construction will conduct a periodic inspection of the energy control procedure(s) at least annually to evaluate their continued effectiveness and determine necessity for updating the written procedure(s).

1. The periodic inspection will be performed by an Authorized employee or person other than the one(s) utilizing the hazardous energy control procedures being inspected.
2. Where lockout and/or tagout is used for hazardous energy control, the periodic inspection will include a review between the inspector and authorized employees of their responsibilities under the hazardous energy control procedure being inspected.
3. The Company will certify that the periodic inspections have been performed. The certification will identify the machine or equipment on which the hazardous energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

11. Contractors

DEB Construction and Contractors will inform each other of their respective lockout tagout procedures.

DEB Construction will ensure its employees understand and comply with the restrictions and prohibitions of the outside employer's energy control program



Contractors, working on company property and/or equipment, will be provided DEB Construction's energy control procedures while servicing or maintaining equipment, machinery or processes.

12. Jobsite Procedures

If DEB Construction employees are working on job sites where lockout tagout activities are being performed and DEB Construction employees are potentially exposed to the isolated energy, DEB Construction employees are REQUIRED to apply their locks and tags to the same energy isolation devices to ensure their safety and compliance with Cal OSHA regulatory requirements.

In addition to applying their locks and tags, DEB Construction employees must ensure/validate that all energy sources that they may be exposed to are effectively isolated.



13. ATTACHMENT A - Sample Energy Control Procedure

Lockout Tagout Energy Control Procedure				
Company: <input style="width: 150px;" type="text"/>		Procedure Creation Date: <input style="width: 100px;" type="text"/>		
		Procedure Audit Date: <input style="width: 100px;" type="text"/>		
Equipment Description:	<input style="width: 95%; height: 20px;" type="text"/>			
Equipment Location:	<input style="width: 95%; height: 20px;" type="text"/>			
Work Activity:	<input style="width: 95%; height: 20px;" type="text"/>			
Each person exposed or potentially exposed to hazardous energy must apply their own personal lock and tag to each energy isolating device.				
# of Locks and Tags needed for this procedure: <input style="width: 50px;" type="text"/>				
Device(s) needed 1: <input style="width: 100px;" type="text"/> 2: <input style="width: 100px;" type="text"/> 3: <input style="width: 100px;" type="text"/>				
<ol style="list-style-type: none"> 1. Notify ALL affected employees that the machine will be shut down. 2. Turn all machine operation controls to the "OFF" position. 3. Proceed with the following steps. 				
ID #	Energy	Device	Location	Action to be taken
<ol style="list-style-type: none"> 4. Clear working area and machine / equipment of tools and other debris. 5. Notify ALL affected employees that the machine will be re-energized. 6. Remove locks, tags, and devices. 7. Restore power to equipment. 				



Personal Protective Equipment

INTRODUCTION

The National Safety Council estimates that there are at least 70,000 disabling eye/face injuries on the job every year in the United States. In addition, there are thousands of other disabling injuries as a result of not wearing Personal Protective Equipment; most of these injuries are preventable.

GENERAL

DEB Construction, LLC will provide Personal Protective Equipment to all employees as required by the Occupations Safety and Health Administration (OSHA) and as recommended by the American National Standards Institute (ANSI). Outside of office environments within the facility and jobsites of DEB Construction, LLC there is a reasonable probability of injury that can be prevented by proper use of Personal Protective Equipment. DEB Construction, LLC shall make conveniently available to employees, type of protectors suitable for work to be performed. No unprotected person shall knowingly be subjected to a hazardous environmental condition.

RESPONSIBILITY

The companies Human Resources Department is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Human Resources Department will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions. **DEB Construction, LLC has expressly authorized Human Resources, Project Managers and Superintendents to halt any operation of the company where there is danger of work-related injuries and illnesses.**



Contents

1. Written Program
2. Facility/Department Evaluation
3. Company Policy (General)
4. Company Policy Regarding Visitors
5. Company Policy Regarding Employees
6. Prescription Eye Wear Users
7. Eye/Face Protective Equipment Specifications
8. Eye Emergency Procedures
9. Selection of Eye/Face Protection Equipment
10. Examples of Eye/Face Protection Equipment
11. Other Personal Protective Equipment



1. Written Program

DEB Construction, LLC will review and evaluate this standard practice instruction on an annual basis, or when changes occur to 29 CFR 1910.133, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Effective implementation of this program requires support from all levels of management within this Company. This written program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of number of workers employed or the number of work shifts. It is designed to establish clear goals, and objectives.

2. Facility/Jobsite Hazard Analysis

The Safety Director, Project Manager and/or Superintendent will assess the site with (JHA's) Job Hazard Analysis for the facility and/or jobsite to determine if any hazards may be present to meet the criteria for designation for any hazards including an eye/face hazard area.

When a hazard cannot be eliminated or controlled by engineering or administrative controls as required by Cal/OSHA regulations, workers must be protected by personal protective equipment (PPE). DEB will ensure that all required safety devices and safeguards, whether employer or employee provided, comply with the Cal/OSHA regulations and are strictly maintained in safe and sanitary conditions. DEB will perform Job Hazard Analysis for all jobs and select the proper PPE for those hazards.

Training

All employees will be trained in when to use PPE and how to properly use PPE. All PPE needs to be fitted properly for the person wearing it, hard hats need to be adjusted for a snug fit, gloves need to fit the hands and hearing protection needs to fit properly over or in the ears. Retraining will happen when an employee demonstrates the failure to properly use PPE.

High risk eye/face hazard areas

Those areas/jobs meeting the criteria for a high-risk eye/face hazard area or having a known potential to pose a hazard will be designated as high-risk eye/face hazard areas. The Superintendent or Project Manager shall inform exposed employees, by posting danger signs, conducting awareness training, or by any other equally effective means, of the existence and location of and the danger posed by high-risk eye/face hazard areas.

A sign reading "DANGER EYE/FACE HAZARD AREA DO NOT ENTER WITHOUT EYE/FACE PROTECTION" or similar language will be used to satisfy the requirement for a sign.

Suitable eye/face protectors shall be provided and worn where machines or operations present a hazard from flying objects, glare, liquids, heat, or a combination of any or all of these hazards or hazard(s) not specifically listed herein. When information indicating



limitations or precautions are received from the manufacturer, they shall be immediately transmitted to employees and appropriate actions are applied.

Company Policy (General)

Eye/face protective devices will be worn by all employees outside of office areas within the facility or when there is a reasonable probability that eye/face injury could occur to an employee at any time at any location. Employees will, in all cases, wear the same level of personal protective equipment as the worker they are observing.

3. Company Policy (Visitor)

Visitor's policy

Company personnel will issue PPE to visitors. Visitors will be informed what proper PPE is needed for the location and will be informed they will need to be worn at all times when they are within the facility or jobsite.

When escorting visitors, it is the escort's responsibility to ensure all PPE is worn at all times when they are within the warehouse and at jobsites outside of enclosed office areas.

4. Company Policy (Employee's)

DEB Construction, LLC Employee's Policy

Protective eye wear must be worn at all times when in designated areas of the warehouse and jobsites.

Sun Glasses

Prescription Sun Safety Glasses may be permitted if approved by Safety Director. Employee's working outdoors for extended periods of time may be authorized Sun Safety Glasses if approved by Safety Director.

5. Prescription Eye Wear Users

Persons whose vision requires the use of corrective lenses in spectacles, and who are required by this instruction to wear eye/face protection, will be provided goggles or spectacles of one of the following types:

- Spectacles with side shields, whose protective lenses provide optical correction.
- Goggles that can be worn over corrective spectacles without disturbing the adjustment of the spectacles.
- Goggles that incorporate corrective lenses mounted behind the protective lenses.



6. Eye/Face Protective Equipment Specifications

Eye/Face Protective Equipment issued to Company personnel shall meet the following minimum specifications:

- They shall provide adequate protection against the particular hazards for which they are designed.
- They shall be reasonably comfortable when worn under the designated conditions. They shall fit snugly and shall not unduly interfere with the movements of the wearer. They shall be durable.
- They shall be capable of being disinfected. They shall be easily cleanable.
- Persons whose vision requires the use of corrective lenses in spectacles, and who are required by this standard to wear eye/face protection, shall wear goggles or spectacles of one of the following types:
 - Spectacles whose protective lenses provide optical correction.
 - Goggles that can be worn over corrective spectacles without disturbing the adjustment of the spectacles.
 - Goggles that incorporate corrective lenses mounted behind the protective lenses.
- Every protector issued shall be checked to determine if it is distinctly marked to facilitate identification of the manufacturer.
- When limitations or precautions are indicated by the manufacturer, they shall be transmitted to the affected employee(s) and appropriate actions are applied.
- Devices purchased by DEB Construction, LLC for eye/face protection shall be in accordance with American National Standard for Occupational and Educational Eye and Face Protection, ANSI -Z-87 1989, partial revision 1991.

7. Eye Emergency Procedures

The Superintendent or Project Manager will ensure all employees under their supervision know where portable eyewash equipment is located.



Debris and Dust

Pull the eyelid out and down over the lower eyelid and let tears wash out the particle. Do this once. If it does not work seek medical attention.

Never try and rub debris out of the eye, this can scratch or cut the eye.

Blows to the eye

Apply a cold compress for fifteen minutes. Reapply the compress hourly to reduce swelling and relieve pain.

Seek medical attention immediately for any severe blow to the eye. Especially if the eye is black or discolored.

All other eye injuries should have any bleeding controlled, lightly bandaged, and then treated by proper medical personnel.

8. Selection of Eye/Face Protection Equipment

The Superintendent or Project Manager will select Personal Protective Equipment based on the job hazard analysis criteria delineated in the Personal Protective Equipment Program.

9. Examples of Eye & Face Protection Equipment

- Goggles, Flexible Fitting, Regular Ventilation
- Goggles, Flexible Fitting, Hooded Ventilation
- Goggles, Cushioned Fitting, Rigid Body
- Spectacles, Metal Frame, with Sideshields
- Spectacles, Plastic Frame, with Sideshields
- Spectacles, Metal-Plastic Frame, with Sideshields
- Welding Goggles, Eyecup Type, Tinted Lenses
- Chipping Goggles, Eyecup Type, Clear Safety Lenses
- Welding Goggles, Coverspec Type tinted Lenses
- Chipping Goggles, Coverspec Type, Clear Safety Lenses
- Welding Goggles, Coverspec Type, Tinted Plate Lens
- Face Shield (Available with Plastic or Mesh Window)
- Welding Helmet **

***Filter lens for protection against radiant energy must be determined on a case-by-case basis.*



10. Other Personal Protective Equipment

Hearing Protection

Hearing protection is required because the noise levels of many construction operations frequently exceed 90 dBA. When employees are subjected to the sound levels listed in the table below feasible administrative or engineering controls must be used. If these controls fail to reduce sound levels to an acceptable range, workers must wear hearing protection to an acceptable range and be trained on how to properly wear hearing protective devices.

Sound Level (dBA)	Time Per Day (Hours)
90	8
95	4
100	2
105	1
110	1/2

Foot Protection

Foot protection is required for workers who are exposed to foot injury from hot, corrosive, or injurious substances; from falling objects or from crushing or penetrating actions. Foot protection is also required for employees working in abnormally wet locations.

Hair/Head Protection

Everyone at a construction site should wear hard hats with bills in the forward position supplied by the Company.

Operators of forklifts should wear a hard hat when operating the vehicle.

Employees with long hair (down to the shoulders) should tie their hair back or wear hair nets or caps when working on equipment with rotating spindles or other moving machinery.

Hand Protection

When employees' hands are exposed to hazards, the Superintendent or Project Manager must formally evaluate the hazards present and, if risks exist, arrange to provide appropriate hand protection suitable to the needs of the job. Hazards may include those from skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical or thermal burns, and harmful temperature extremes. Performance characteristics of the hand protection should be evaluated relative to the tasks to be performed, the conditions present, duration of the use, and the hazards or potential hazards identified.



The Superintendent or Project Manager is responsible for ensuring that employees wear the designated gloves on the job.

Additional PPE Requirements

- Loose clothing must not be worn near moving machinery.
- Neckties must be securely clipped to the shirt.
- Employees working in areas where chemicals, solvents, other irritants, or caustic acids are used (i.e., tumbling room) will be supplied with face shields, chemical resistant boots, aprons, chemically protective gloves, etc.
- Rings and jewelry must not be worn when working on machinery.
- Work gloves (leather-palmed) must be worn by anyone handling raw materials other than chemicals.
- All PPE needs to be cleaned regularly in a sanitary and clean condition. DEB will supply all cleaning materials needed to safely sanitize all PPE.

Training

Superintendents or Human Resources will arrange to train each employee in the proper and correct use of PPE regularly. Proper care and maintenance of the PPE, useful life of the equipment, and the correct way to dispose of broken or damaged PPE. The Superintendents or the Safety Director will document the names of the employees who have received the training, date of the training, and that the employee has received and understands the training. When an employee has demonstrated the lack of understanding of the use of PPE they will be retrained in the proper use of PPE.



DEB Construction, LLC

Hand and Portable Power Tool Safety Program

INTRODUCTION

Thousands of workers are injured every year due to improper use of hand and portable powered tools. Serious injury or death can be the result of electrocution, severed fingers, blindness and a host of other types of injuries. OSHA estimates that most of these accidents can be prevented if proper safety precautions at job sites are initiated. These pose a serious problem for exposed workers and their employer. The OSHA Hand and Portable Powered Tools Standards establish uniform requirements to ensure that the hazards of using these tools are evaluated, safety procedure implemented and that the proper hazard information is transmitted to all affected workers.

GENERAL

DEB Construction, LLC will ensure that tool hazards are evaluated. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying tool selection and use deficiencies, evaluating the associated potential hazards, communicating information concerning these hazards and establishing appropriate procedures, and protective measures for employees.

RESPONSIBILITY

The company Human Resources Department is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Human Resources Department will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions. **DEB Construction, LLC has expressly authorized Human Resources, Project Managers and Superintendents to halt any operation of the company where there is danger of serious person injury.**



Contents

1. Written Program
2. General Requirements
3. Tool Selection
4. Power Tool Precautions
5. Methods of Guarding
6. Portable Circular Saws
7. Powered Abrasive Wheel Tools
8. Vertical Portable Grinders
9. Portable Belt Sanding Machine
10. Pneumatic Powered Tools
11. Explosive Activated Fastening Tools
12. Jacks
13. Handheld Cutting Tools and Knives
14. Switches and Controls
15. Compressed Air
16. Initial Training
17. Definitions



1. Written Program

DEB Construction, LLC will review and evaluate this program on an annual basis, or when operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety and health, that is endorsed and advocated by the highest level of management within this Company and that outlines our goals and plans. This written program will be communicated to all required personnel. It is designed to establish clear goals and objectives.

2. General requirements

DEB Construction, LLC shall be responsible for the safe condition of tools and equipment used by its employees, including tools and equipment which may be furnished by employees. DEB Construction, LLC will develop hand and powered tool operational procedures through the use of this document. After tool selection and evaluation, tools will be used and maintained in a safe condition. Superintendents and Project Managers shall ensure that the proper types of tools are utilized at each job site.

3. Tool Selection, Evaluation and Condition

The greatest hazards posed by tools usually result from misuse and or improper maintenance. Tool selection sometimes is not considered a priority when arrangements are made to begin work. All employees will consider the following when selecting tools:

- Is the tool correct for the type of work to be performed?
- Are guards installed properly and in good condition?
- Are grounding methods sufficient when working in wet conditions?
- Does the tool create sparks or heat? Has this been considered when working around flammable substances?
- Do impact tools such as chisels, wedges, or drift pins have mushroomed heads?
 - The heads can shatter on impact, sending sharp fragments flying!
- Are wooden handled tools loose or splintered?
 - This can result in the heads flying off and striking the user/coworkers!
- Are cutting tools sharp?
 - Dull tools are more hazardous than sharp ones.
- Is the tool used on the proper working surface?
 - Tools used on dirty or wet working surfaces can create a multitude of hazards.



- Are tools stored properly when not being used?
 - Saw blades, knives, and scissors and like sharp tools should be stores so that sharp edges are directed away from aisles and coworkers.
- Is there sufficient clearance for tools requiring swinging motions such as hammers, axes, picks, etc.?

4. Power tool precautions

Power tools can be hazardous when improperly used, this Company uses several types. These types are based on the power source they use: Electric, liquid fuel, hydraulic, pneumatic and powder-actuated. The following precautions will be taken by employees of this Company to prevent injury.

- Power tools will always be operated within their design limitations.
- Eye protection, gloves and safety footwear are recommended during operation.
- Store tools in an appropriate dry location when not in use.
- Work only in well illuminated locations.
- Tools will not be carried by the cord or hose.
- Cords or hoses will not be yanked to disconnect it from the receptacle.
- Cords and hoses will be kept away from heat, oils, and sharp edges or any other source that could result in damage.
- Tools will be disconnected when not in use, before servicing, and when changing accessories such as blades, bits and cutters.
- Observers will be kept at a safe distance at all times from the work area.
- Work will be secured with clamps or a vice where possible to free both hands to operate tools.
- To prevent accidental starting, employees should be continually aware not to hold the start button while carrying a plugged-in tool.
- Tools will be maintained in a clean manner and properly maintained in accordance with the manufacturers' guidelines.
- Ensure that proper shoes are worn and that the work area is kept clean to maintain proper footing and good balance.
- Ensure that proper apparel is worn. Loose clothing, ties, or jewelry can become caught in moving parts.
- Tools and cords that are damaged will be immediately removed for repair or replacement.



- Compressed air shall not be used for cleaning purposes except where reduced to less than 30 p.s.i., and then only with effective chip guarding and personal protective equipment.

5. Methods of guarding

One or more methods of guarding shall be provided where required to protect the operator and other employees in the area from hazards such as those created by point of operation, in running nip points, rotating parts, flying chips and sparks. Examples of guarding methods are; barrier guards, two-hand tripping devices, electronic safety devices, etc. The guard shall be such that it does not offer an accident hazard in itself. Employee's will:

- Inspect tools without guards for signs of guard removal. If it is evident that a guard is required, tag-out the tool and obtain a replacement. Tools will not be energized during inspection.
- Inspect tools that have guards for proper operation and maintenance prior to use. Tools will not be energized during inspection.
- Never remove a guard during use.

6. Portable Circular Saws

All portable, power-driven circular saws having a blade diameter greater than 2 in. will be equipped with guards above and below the base plate or shoe. The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. For authorized use the following conditions must be met.

- An upper guard must cover the entire blade of the saw.
- A retractable lower guard must cover the teeth of the saw.
- Except when it makes contact with the work material, the lower guard must automatically return to the covering position when the tool is withdrawn from the work.

7. Powered abrasive wheel tools

Abrasive wheels shall be used only on tools/equipment provided with safety guards.

Exceptions

These requirements do not apply to the following classes of wheels and conditions:

- Wheels used for internal work while within the work being ground.
 - Mounted wheels used in portable operations 2 inches and smaller in diameter.
 - Types 16, 17, 18, 18R and 19 cones, and plugs and threaded hole pot balls where the work offers protection.



- Guard covers: Employees will ensure that a safety guard covers the spindle end, nut and flange projections. The safety guard shall be mounted so as to maintain proper alignment with the wheel, and the strength of the fastenings shall exceed the strength of the guard.
 - Exception: Safety guards on all operations where the work provides a suitable measure of protection to the operator may be so constructed that the spindle end, nut and outer flange, is exposed. Where the nature of the work requires to entirely cover the side of the wheel, the side covers of the guard may be omitted.
 - Exception: The spindle end, nut and outer flange, may be exposed on portable machines designed for, and used with, type 6, 11, 27 and 28 abrasive wheels, cutting off wheels and tuck-pointing wheels.
- Cup wheels. Cup wheels (Types 6 and 11) shall be protected by:
 - Safety guards as specified.
 - Special "revolving cup guards" which mount behind the wheel and turn with it. They shall be made of steel or other material with adequate strength and shall enclose the wheel sides upward from the back for one-third of the wheel thickness. The mounting features shall conform to all regulations. It is necessary to maintain clearance between the wheel side and the guard. The clearance shall not exceed one-sixteenth.
- General safety precautions:
 - Before being mounted, wheels should be inspected closely and sound- or ring-tested to be sure that it is free from cracks or defects. To test, wheels should be tapped gently with a light non-metallic instrument. If they are sound cracked or dead, they could fly apart in operation and therefore must not be used. A sound and undamaged wheel will give a clear metallic tone or ring.
 - Employees will not locate themselves directly in front of the wheel as it accelerates to full operating speed.
 - Employees will use eye protection.
 - Power will be turned off when not in use.
 - Hand held grinders are never placed in vises.
- Mounting and inspection of abrasive wheels:
 - Immediately before mounting, all wheels shall be closely inspected and sounded by the user by means of the ring test to make sure they have not been damaged in transit, storage, or otherwise. The spindle speed of the machine shall be checked before mounting of the wheel to be certain that it does not exceed the maximum operating speed marked on the wheel.
 - Grinding wheels shall fit freely on the spindle and remain free under all grinding conditions. A Controlled clearance between the wheel hole and the machine spindle (or wheel sleeves or adaptors) is essential to avoid excessive pressure from mounting and spindle expansion. To accomplish this, the machine spindle



shall be made to nominal (standard) size plus zero minus .002 inch and the wheel hole shall be made suitably oversized to assure safety clearance under the conditions of operating heat and pressure.

- All contact surfaces of wheels, blotters and flanges shall be flat and free of foreign matter.
- When a bushing is used in the wheel hole it shall not exceed the width of the wheel and shall not contact the flanges.
- Excluded machinery: Natural sandstone wheels and metal, wooden, cloth, or paper discs, having a layer of abrasive on the surface are not covered by these requirements.

8. Vertical portable grinders

Superintendents and Project Managers will ensure all employees are thoroughly familiar with and use strict work practices in accordance with the manufacturer's instruction. Safety guards used on machines known as right angle head or vertical portable grinders shall have a maximum exposure angle of 180, and the guard shall be located to be between the operator and the wheel during use. Adjustment of guard shall be such that pieces of an accidentally broken wheel will be deflected away from the operator.

- Other portable grinders.
 - The maximum angular exposure of the grinding wheel periphery and sides for safety guards used on other portable grinding machines shall not exceed 180 and the top half of the wheel shall be enclosed at all times.
- Bench Grinders.
 - The upper peripheral guard (tongue guard) will be adjusted downward and the tool rest kept adjusted closely to the wheel with a maximum clearance of 1/8 inch (29CFR 1910.215).

9. Portable belt sanding machines

Superintendents and Project Managers will ensure that all belt sanding machines used by their personnel be provided with guards at each nip point where the sanding belt runs onto a pulley. These guards will effectively prevent the hands or fingers of the operator from coming in contact with the nip points. The unused run of the sanding belt shall be guarded against accidental contact.

10. Pneumatic powered tools and hoses

Superintendents and Project Managers will ensure all employees are thoroughly familiar with and use strict work practices in accordance with the manufacturer's instructions. Prior to use, the following requirements will be complied with.

- Tool retainer.



- A tool retainer will be installed on each piece of utilization equipment which, without such a retainer, may eject the tool.
- Air hoses.
 - Hose and hose connections used for conducting compressed air to utilization equipment will be compatible with the pressure and service to which they are subjected.

11. Explosive actuated fastening tools

General safety precautions: Superintendents and Project Managers will ensure all employees are thoroughly familiar with and use strict work practices in accordance with the manufacturer's instructions.

- Should be card holding licensed to operate tool.
- Operators and assistants using tools shall be safeguarded by wearing eye protection.
- Head and face protection shall be used, as required by working conditions.
- When tool is not in use; it should be secured in a locked cage.
- Before using a tool, the employee will inspect it to determine to his satisfaction that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions.
- When a tool develops a defect during use, the operator shall immediately cease to use it, until it is properly repaired.
- Tools will not be loaded until just prior to the intended firing time. Neither loaded nor empty tools are to be pointed at any workmen.
- No tools shall be loaded unless being prepared for immediate use, nor shall an unattended tool be left loaded.
- Misfire instructions (general):
 - Empty cartridges laying on the floor is an OSHA violation.
 - Know the manufacturer's instructions.
 - Hold the tool in the operating position for at least 30 seconds.
 - Try to operate the tool a second time.
 - Wait another 30 seconds, holding the tool in the operating position; then proceed to remove the explosive load in strict accordance with the manufacturer's instructions.
- A tool will never be left unattended in a place where it would be available to unauthorized person.
- Fasteners will not be driven into very hard or brittle materials including, but not limited to, cast iron, glazed tile, surface-hardened steel, glass block, live rock, face brick, or hollow tile.



- Driving into materials easily penetrated will be avoided unless such materials are backed by a substance that will prevent the pin or fastener from passing completely through and creating a flying-missile hazard on the other side.
- Fasteners will not be driven directly into materials such as brick or concrete closer than 3 inches from the unsupported edge or corner, or into steel surfaces closer than one-half inch from the unsupported edge or corner, unless a special guard, fixture, or jig is used. (Exception: Low-velocity tools may drive no closer than 2 inches from an edge in concrete or one-fourth inch in steel.)
- When fastening other materials, such as a 2X4 inch wood section to a concrete surface, it is permissible to drive a fastener of no greater than 7/32-inch shank diameter not closer than 2 inches from the unsupported edge or corner of the work surface.
- Fasteners will not be driven through existing holes unless a positive guide is used to secure accurate alignment.
- No fastener will be driven into a spalled area caused by an unsatisfactory fastening.
- Tools will not be used in an explosive or flammable atmosphere.
- All tools will be used with the correct shield, guard, or attachment recommended by the manufacturer.
- Any tool found not in proper working order will be immediately removed from service.

12. Jacks

- The operator will make sure that the jack used has a rating sufficient to lift and sustain the load.
- The rated load will be legibly and permanently marked in a prominent location on the jack by casting, stamping, or other suitable means.
- In the absence of a firm foundation, the base of the jack will be blocked. If there is a possibility of slippage of the cap, a block shall be placed in between the cap and the load.
- The operator will watch the stop indicator, which shall be kept clean, in order to determine the limit of travel. The indicated limit will never be overrun.
- After the load has been raised, it will be cribbed, blocked, or otherwise secured at once.
- Hydraulic jacks exposed to freezing temperatures shall be supplied with adequate antifreeze liquid.
- All jacks shall be properly lubricated at regular intervals.
- Inspections. Each jack will be thoroughly inspected at times which depend upon the service conditions. Inspections will be not less frequent than the following:
 - For constant or intermittent use at one locality, once every 6 months.



- For jacks sent out of shop for special work, when sent out and when returned.
- For a jack subjected to abnormal load or shock, immediately before and immediately thereafter.
- Repair or replacement will/shall be examined for possible defects before installation.
- Jacks which are out of order will be tagged-out accordingly, reported to the maintenance department, and will not be used until repairs are made.

13. Handheld Cutting Tools and Knives

Employees utilizing knives and other cutting implements should follow generally recognized safe practices.

- If you are unsure check with your Superintendent or Human Resources Representative.

14. Switches and Controls

Employees will determine the following before using a hand-held power tool.

- Circular saws, chain saws and percussion tools. All hand-held powered circular saws having a blade diameter greater than 2 inches, electric, hydraulic or pneumatic chain saws, and percussion tools without positive accessory holding means shall be equipped with a constant pressure switch or control that will shut off the power when the pressure is released.
- All hand-held powered drills, tappers, fastener drivers, horizontal, vertical and angle grinders with wheels greater than 2 inches in diameter, disc sanders with discs greater than 2 inches in diameter, belt sanders, reciprocation saws, saber, scroll and jig saws with blade shanks greater than a nominal one-fourth inch, and other similarly operating powered tools shall be equipped with a constant pressure switch or control, and may have a lock-on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on.
- Other hand-held powered tools
 - All other hand-held powered tools, such as, but not limited to, platen sanders, grinders with wheels 2 inches in diameter or less, disc sanders with discs 2 inches in diameter or less, routers, planers, laminate trimmers, nibblers, shears, saber, scroll and jig saws with blade shanks a nominal one-fourth of an inch wide or less, will be equipped with either a positive "on-off" control, or other controls.
 - Saber, scroll and jig saws with nonstandard blade holders may use blades with shanks which are non-uniform in width, provided the narrowest portion of the blade shank is an integral part in mounting the blade.



- Blade shank width shall be measured at the narrowest portion of the blade shank when saber, scroll and jig saws have nonstandard blade holders. OSHA defines nominal in this subparagraph as ± 0.05 inch.
- Equipment used by this Company will have the operating control on hand-held power tools located so as to minimize the possibility of its accidental operation, if such accidental operation would constitute a hazard to employees.
- Applicability. Section 14.3 of this SPI does not apply to concrete vibrators, concrete breakers, powered tampers, jack hammers, rock drills, garden appliances, household and kitchen appliances, personal care appliances, medical or dental equipment, or to fixed machinery.

15. Compressed Air

Prior to using Compressed Air all employees that will be handling the use of Compressed Air will be trained in the proper use and storage of the Compressed Air.

Compressed air shall not be used for cleaning purposes except where reduced to less than 30 p.s.i. and then only with effective chip guarding and personal protective equipment which meets the requirements of Subpart E of this part. The 30 p.s.i. requirement does not apply for concrete form, mill scale and similar cleaning purposes.

Fuel gas hose and oxygen hose shall be easily distinguishable from each other. The contrast may be made by different colors or by surface characteristics readily distinguishable by the sense of touch. Oxygen and fuel gas hoses shall not be interchangeable. A single hose having more than one gas passage shall not be used.

Compressed air equipment must be visually inspected prior to use. Contents of compressed gas cylinders will be clearly labeled and identifiable.

All safety valves shall be tested frequently and at regular intervals to determine whether they are in good operating condition.

"Safety relief devices for compressed gas containers." Compressed gas cylinders, portable tanks, and cargo tanks shall have pressure relief devices installed and maintained in accordance with Compressed Gas Association Pamphlets S-1.1-1963 and 1965 addenda and S-1.2-1963, which is incorporated by reference as specified in Sec. 1910.6.

Gauges and valves.

Every air receiver shall be equipped with an indicating pressure gauge (so located as to be readily visible) and with one or more spring-loaded safety valves. The total relieving capacity of such safety valves shall be such as to prevent pressure in the receiver from exceeding the maximum allowable working pressure of the receiver by more than 10 percent.

No valve of any type shall be placed between the air receiver and its safety valve or valves.



Safety appliances, such as safety valves, indicating devices and controlling devices, shall be constructed, located, and installed so that they cannot be readily rendered inoperative by any means, including the elements.

All safety valves and regulators shall be tested frequently and at regular intervals to determine whether they are in good operating condition. They should also be marked if no longer needed.

If, when the valve on a fuel gas cylinder is opened, there is found to be a leak around the valve stem, the valve shall be closed and the gland nut tightened. If this action does not stop the leak, the use of the cylinder shall be discontinued, and it shall be properly tagged and removed from the work area. In the event that fuel gas should leak from the cylinder valve, rather than from the valve stem, and the gas cannot be shut off, the cylinder shall be properly tagged and removed from the work area. If a regulator attached to a cylinder valve will effectively stop a leak through the valve seat, the cylinder need not be removed from the work area. When the cylinder cap cannot be removed, precautions will be taken. Securing tank, using appropriate tools that are non-sparking.

Use of appropriate tools are required to open and close cylinder valves

Fuel gas and oxygen manifolds shall be placed in safe, well ventilated, and accessible locations. They shall not be located within enclosed spaces.

Transporting, moving, and storing compressed gas cylinders.

Valve protection caps shall be in place and secured.

When cylinders are hoisted, they shall be secured on a cradle, slingboard, or pallet. They shall not be hoisted or transported by means of magnets or choker slings.

Cylinders shall be moved by tilting and rolling them on their bottom edges. They shall not be intentionally dropped, struck, or permitted to strike each other violently.

When cylinders are transported by powered vehicles, they shall be secured in a vertical position.

Valve protection caps shall not be used for lifting cylinders from one vertical position to another. Bars shall not be used under valves or valve protection caps to pry cylinders loose when frozen. Warm, not boiling, water shall be used to thaw cylinders loose.

Unless cylinders are firmly secured on a special carrier intended for this purpose, regulators shall be removed and valve protection caps put in place before cylinders are moved.



A suitable cylinder truck, chain, or other steadying device shall be used to keep cylinders from being knocked over while in use.

When work is finished, when cylinders are empty, or when cylinders are moved at any time, the cylinder valve shall be closed.

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

Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet (6.1 m) or by a noncombustible barrier at least 5 feet (1.5 m) high having a fire-resistance rating of at least one-half hour.

Inside of buildings, cylinders shall be stored in a well-protected, well-ventilated, dry location, at least 20 feet (6.1 m) from highly combustible materials such as oil or excelsior. Cylinders should be stored in definitely assigned places away from elevators, stairs, or gangways. Assigned storage places shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.

The in-plant handling, storage, and utilization of all compressed gases in cylinders, portable tanks, rail tankcars, or motor vehicle cargo tanks shall be in accordance with Compressed

Inside of buildings, cylinders shall be stored in a well-protected, well-ventilated, dry location, at least 20 feet (6.1 m) from highly combustible materials such as oil or excelsior. Cylinders should be stored in assigned places away from elevators, stairs, or gangways and labeled for full and empty cylinders. Assigned storage places shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.

Drains and traps. A drain pipe and valve shall be installed at the lowest point of every air receiver to provide for the removal of accumulated oil and water. Adequate automatic traps may be installed in addition to drain valves. The drain valve on the air receiver shall be opened and the receiver completely drained frequently and at such intervals as to prevent the accumulation of excessive amounts of liquid in the receiver.

16. Initial training

Training shall be conducted prior to job assignment. DEB Construction, LLC shall provide training to ensure that the purpose, function and proper use of tools to be used in the normal function of their jobs is understood by employees and that the



knowledge and skills required for the safe application and usage is acquired by employees. This standard practice instruction shall be provided to and read by all employees receiving training. The training shall include, as a minimum the following:

- Types of tools appropriate for use.
- Recognition of applicable hazards associated with the work to be completed.
- Tool determination and additional requirements.
- Procedures for removal of a tool from service.
- All other employees whose work operations are or may be in an area where tools which could present a hazard to other than the user, will be instructed to an awareness level concerning hazards.
- Tools identification. Tools having identification numbers will be checked for legibility.
- Certification. DEB Construction, LLC shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and dates of training.

17. Definitions.

Explosive-actuated fastening tool terms

- 1.) **Hammer-operated piston tool-low-velocity type.** A tool which, by means of a heavy mass hammer supplemented by a load, moves a piston designed to be captive to drive a stud, pin, or fastener into a work surface, always starting the fastener at rest and in contact with the work surface.
- 2.) **High-velocity tool.** A tool or machine which, when used with a load, propels or discharges a stud, pin, or fastener, at velocities in excess of 300 feet per second when measured 6.5 feet from the muzzle end of the barrel, for the purpose of impinging it upon, affixing it to, or penetrating another object or material.
- 3.) **Low-velocity piston tool.** A tool that utilizes a piston designed to be captive to drive a stud, pin, or fastener into a work surface. It will not cause such stud, pin, or fastener to have a mean velocity in excess of 300 feet per second when measured 6.5 feet from the muzzle end of the barrel.
- 4.) **Stud, pin, or fastener.** A fastening device specifically designed and manufactured for use in explosive-actuated fastening tools.
- 5.) **To chamber.** To fit properly without the use of excess force, the case being duly supported.
- 6.) **Explosive power load, also known as load.** Any substance in any form capable of producing a propellant force.
- 7.) **Tool.** An explosive-actuated fastening tool, unless otherwise indicated, and all accessories pertaining thereto.



- 8.) **Protective shield or guard.** A device or guard attached to the muzzle end of the tool, which is designed to confine flying particles.

Abrasive wheel terms

- 1.) **Mounted wheels.** Mounted wheels, usually 2-inch diameter or smaller, and of various shapes, may be either organic or inorganic bonded abrasive wheels. They are secured to plain or threaded steel mandrels.
- 2.) **Tuck pointing.** Removal, by grinding, of cement, mortar, or other nonmetallic jointing material.
- 3.) **Tuck pointing wheels.** Tuck pointing wheels, usually Type 1, reinforced organic bonded wheels have diameter, thickness and hole size dimension. They are subject to the same limitations of use and mounting as Type 1 wheels. Limitation: Wheels used for tuck pointing should be reinforced, organic bonded.
- 4.) **Portable grinding.** A grinding operation where the grinding machine is designed to be hand held and may be easily moved from one location to another.
- 5.) **Organic bonded wheels.** Organic wheels are wheels which are bonded by means of an organic material such as resin, rubber, shellac, or other similar bonding agent.
- 6.) **Safety guard.** A safety guard is an enclosure designed to restrain the pieces of the grinding wheel and furnish all possible protection in the event that the wheel is broken in operation.
- 7.) **Reinforced wheels.** The term reinforced as applied to grinding wheels shall define a class of organic wheels which contain strengthening fabric or filament. The term reinforced does not cover wheels using such mechanical additions as steel rings, steel cup backs or wire or tape winding.
- 8.) **Type 11 flaring cup wheels.** Type 11 flaring cup wheels have double diameter dimensions D and J, and in addition have thickness, hole size, rim and back thickness dimensions. Grinding is always performed on rim face, W dimension. Type 11 wheels are subject to all limitations of use and mounting listed for Type 6 straight sided cup wheels definition.
- 9.) **Type 6 straight cup wheels.** Type 6 cup wheels have diameter, thickness, hole size, rim thickness, and back thickness dimensions. Grinding is always performed on rim face, W dimension. Limitation: Minimum back thickness, E dimension, should not be less than one-fourth T dimension. In addition, when unthreaded hole wheels are specified, the inside flat, K dimension, must be large enough to accommodate a suitable flange.
- 10.) **Type 1 straight wheels.** Type 1 straight wheels have diameter, thickness, and hole size dimensions and should be used only on the periphery. Type 1 wheels shall be mounted between flanges. Limitation: Hole dimension (H) should not be greater than two-thirds of wheel diameter dimension (D) for precision, cylindrical, centerless, or surface grinding applications. Maximum hole size for all other applications should not exceed one-half wheel diameter.



Jack terms

- 1.) **Jack.** A jack is an appliance for lifting and lowering or moving horizontally a load by application of a pushing force.
- 2.) **Rating.** The rating of a jack is the maximum working load for which it is designed to lift safely that load throughout its specified amount of travel.

Note: To raise the rated load of a jack, the point of application of the load, the applied force, and the length of lever arm should be those designated by the manufacturer for the particular jack considered.



DEB Construction, LLC

Ladder and Scaffold Safety

INTRODUCTION

Ladders are a major source of injuries and fatalities. OSHA Estimates that there are approximately more than 25,000 injuries and as many as 35 fatalities each year due to falls from stairways, ladders and scaffolds. Most of these accidents can be prevented if proper safety precautions are initiated. This poses a serious problem for exposed workers and their employer. The OSHA standards governing Stairs and Ladders establish uniform requirements to ensure that the hazards existing in the U.S. workplace are evaluated, safety procedures implemented, and that the proper hazard information is transmitted to all affected workers.

GENERAL

DEB Construction, LLC will ensure that all potential hazards regarding ladders and scaffolds within our facility or job sites are evaluated. This standard practice instruction is intended to address comprehensively the issue of; evaluating and identifying potential deficiencies, evaluating the associated potential hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

RESPONSIBILITY

The company Human Resources Department is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Human Resources Department will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions.

DEB Construction, LLC has expressly authorized Human Resources, Project Manager and Superintendent to halt any operation of the company where there is danger of work-related injuries and illnesses.



Contents

1. Written Program
2. General Requirements
3. Fiberglass/Wooden Ladders Safety Policy
4. Portable Fiberglass/Wooden Ladders
5. Metal Ladders Safety Policy
6. Portable Metal Ladders
7. Procurement and Disposal of ladders
8. Scaffolds



I. Ladders

1. Written Program

DEB Construction, LLC will review and evaluate this standard practice instruction on an annual basis, or when changes occur to the governing regulatory standards, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety and health, that is endorsed and advocated by the highest level of management within this Company and that outlines our goals and plans. This written program will be communicated to all required personnel. It is designed to establish clear goals, and objectives.

2. General Requirements

All facilities and equipment owned by this Company will be maintained in a safe and healthful manner. Certain work conditions may contain a reasonable probability of injury that can be prevented by proper maintenance and supervision. DEB Construction, LLC will do all possible to ensure the safety of our employees. No employee will knowingly be subjected to a hazardous condition without all possible protective measures first being implemented.

Homemade or in-house constructed ladders will not be used by this Company.

All sub-contractors on site must be responsible for following OSHA Regulations.

3. Fiberglass/Wooden Ladders Safety Policy

- A. To ensure safety and service ability the following precautions concerning the care and use of fiberglass/wooden ladders will be observed:
- i) Ladders will be maintained in good condition at all times, the joint between the steps and side rails will be tight, all hardware and fittings securely attached, and the movable parts will operate freely without binding or undue play.
 - ii) Metal bearings of locks, wheels, pulleys, etc., will be frequently lubricated.
 - iii) Frayed or badly worn rope will be replaced.
 - iv) Safety feet and other auxiliary equipment will be kept in good condition to insure proper performance.
 - v) Ladders will be inspected frequently and those, which have developed defects, will be withdrawn from service for repair or destruction and tagged or marked as "Dangerous, Do Not Use."
 - vi) Rungs should be kept free of grease and oil.
- B. The following safety precautions will be observed in connection with the use of fiberglass/wooden ladders:



- i) Portable rung and cleat ladders will, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder (the length along the ladder between the foot and the top support). The ladder will be so placed as to prevent slipping, or it will be lashed, or held in position. Ladders will not be used in a horizontal position as platforms, runways, or scaffolds.
- ii) Ladders for which dimensions are specified should not be used by more than one person at a time or with ladder jacks and scaffold planks where use by more than one person is anticipated. In such cases, specially designed ladders with larger dimensions of the parts should be procured.
- iii) Portable ladders will be so placed that the side rails have a secure footing. The top rest for portable rung and cleat ladders will be reasonably rigid and will have ample strength to support the applied load.
- iv) Ladders will not be placed in front of doors opening toward the ladder unless the door is blocked, locked, or guarded.
- v) Ladders will not be placed on boxes, barrels, or other unstable bases to obtain additional height.
- vi) Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other faulty equipment will not be used, ladders having any of these conditions present will be destroyed and disposed of. Improvised repairs will not be made.
- vii) Short ladders will not be spliced together to provide long sections.
- viii) Ladders made by fastening cleats across a single rail will not be used.
- ix) Ladders will not be used as guys, braces, or skids, or for other than their intended purposes.
- x) Tops of ordinary stepladders will not be used as steps.
- xi) On two-section extension ladders the minimum overlap for the two sections in use will be as follows:

Size of Ladder (Feet)	Overlap (Feet)
Up to and including 36	3
Over 36 up to and including 48	4
Over 48 up to and including 60	5

- xii) Portable rung ladders with reinforced rails will only be used with the metal reinforcement on the underside.
- xiii) No ladder should be used to gain access to a roof or elevated work area unless the top of the ladder is extended at least 3 feet above the point of support.
- xiv) All portable rung ladders will be equipped with nonslip bases when there is a hazard of slipping. Nonslip bases are not intended as a substitute for care in safely placing, lashing, or holding a ladder that is being used upon oily, metal, concrete, or slippery surfaces.



- xv) The bracing on the back legs of stepladders is designed solely for increasing stability and not for climbing.

4. Portable Fiberglass/Wooden Ladders

A. In order to insure safety under normal conditions of usage, DEB Construction, LLC will purchase and maintain portable fiberglass/wooden ladders that conform to the following minimum requirements for the construction, care, and use of common types of portable fiberglass/wooden ladders.

B. General Requirements

- i) All fiberglass/wooden parts will be maintained free from sharp edges and splinters; sound and free from accepted visual inspection from shake, wane, compression failures, decay, or other irregularities.
- ii) Step spacing must not be more than 12 inches. Steps will be parallel and level when the ladder is in position for use.
- iii) The minimum width between side rails at the top, inside to inside, must not be less than 11 ½ inches. From top to bottom, the side rails must spread at least 1 inch for each foot of length of stepladder.
- iv) A metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in open positions must be properly maintained for each stepladder. The spreader must have all sharp points covered or removed to protect the user.

C. Stepladder Types

- i) Type I - Industrial stepladder, 3 to 20 feet for heavy duty.
- ii) Type II - Commercial stepladder, 3 to 12 feet for medium duty.
- iii) Type III - Household stepladder, 3 to 6 feet for light duty.

5. Metal Ladders Safety Policy

A. To ensure safety and serviceability, the following precautions concerning the care and use of metal ladders will be observed:

- i) Ladders must be maintained in good usable condition at all times.
- ii) If ladders tip over, inspect ladder for side rails dents or bends, or excessively dented rungs; check all rung-to-side-rail connections; check hardware connections; check rivets for shear.
- iii) If ladders are exposed to oil and grease, equipment should be cleaned of oil, grease, or slippery materials.
- iv) Ladders having defects are to be marked and taken out of service until repaired by either maintenance department or the manufacturer.



- B. The following safety precautions will be observed in connection with the use of metal ladders:
- i) A simple rule for setting up a ladder at the proper angle is to place the base a distance from the vertical wall equal to one-fourth the working length of the ladder.
 - ii) Portable ladders are designed as a one-man working ladder based on a 200- pound load.
 - iii) The ladder base section must be placed with a secure footing.
 - iv) The top of the ladder must be placed with the two rails supported, unless equipped with a single support attachment.
 - v) When ascending or descending, the climber must face the ladder.
 - vi) Ladders must not be tied or fastened together to provide longer sections.
- C. They must be equipped with the hardware fittings necessary if the manufacturer endorses extended uses.
- i) Ladders should not be used as a brace, skid, guy or gin pole, gangway, or for other uses other than that for which they were intended, unless specifically recommended for use by the manufacturer.
 - ii) Metal ladders will not be used when work is performed on or near electric circuits.

6. Portable Metal Ladders

DEB Construction, LLC will purchase only ladders without structural defects or potential accident hazards such as sharp edges, burrs, etc. DEB Construction, LLC will purchase ladders meeting industrial grade specifications. Homemade or in-house constructed ladders will not be used by DEB Construction, LLC.

7. Procurement and Disposal of Ladders

All procurement and disposal of ladders will be performed through or with the knowledge of Rory Hayes, Human Resources. Ladders will be destroyed beyond use prior to disposal to prevent further use by anyone. Procurement of ladders will be accomplished based on the type of work anticipated to be performed and in accordance with this Standard Practice Instruction and applicable OSHA Regulations.

8. Scaffold Safety

Falls are one of the most common causes of workplace accidents and injuries, and scaffolds contribute, at least indirectly, to many of these. Avoiding scaffold accidents involves three elements:

- Proper erection and maintenance of the scaffold itself.
- The provision and use of appropriate fall prevention/arrest equipment.



- Following safe work practices.

A. Erecting the Scaffold

Many scaffold accidents are caused by using improvised scaffolding- made quickly or on the spur of the moment, or in an offhand way- such as putting one box on top of another on a steel scaffold, instead of installing two more steel bucks.

There are many types of scaffolds, and although some may have unique requirements, following the most up-to-date requirements carefully is important for every type. Here are some examples:

- i) Steel scaffolding should be erected and used in accordance with the manufacturer's recommendations, making sure all connections are properly seated and locked.
- ii) Wood scaffolding must conform to safety code design and be in strict compliance with material specification and bracing. Specifications for guard-rail height, cross-bracing, and toe boards are clearly spelled out in OSHA regulations.

Free-standing towers greater in height than four times the width of the base should be guyed. Pole scaffolds should be anchored at the designated intervals. Foundation sills should be placed under all scaffolds that are set on earth. Planks should be secured to the scaffold when left unattended.

B. Fall Protection

Many of the specified requirements for scaffold erection are directly aimed at preventing or at least minimizing the risk that a scaffold worker will fall. But such devices as safety belts and harnesses add protection by ensuring that if a fall does occur, it doesn't result in serious injury or death. We provide such equipment, but it will be of no help to you unless you use it. That's why we will deal strictly with anyone who does not use these required protective devices.

C. Safe Work Practices

- i) Before you work in or near high places, and particularly on scaffolding or with safety belts, always check the ropes, cables, chins, or other holding devices for weakness caused by accident or normal wear.
- ii) Swinging scaffolds pose particular problems of their own. It is advisable to have one person in charge of the moving up and maintenance of scaffold machines.
- iii) Another danger associated with scaffolds is that tools or materials may fall off and cause severe injury to someone below. Or debris and other objects may fall from other areas of the building onto the scaffold. Therefore:
 - a) Hard hats should be worn by anyone working on or below the scaffold.



- b) Overhead protection should be provided, either on the scaffold itself or projecting from the floor of the building immediately above the scaffold.
- c) When deemed advisable, screening should be placed up to guardrail height to prevent materials from falling off.
- d) The scaffold surface must be kept in good condition, properly guarded, and clean - housekeeping is just as important there as on floors and aisle ways.

The safe use of scaffolds depends greatly on the common sense of the workers themselves. Once we've made sure the scaffolds have been erected correctly, and that fall protection gear is provided, the rest is up to you. To be safe, work safely.

II. Scaffolds

Work activities associated with scaffolds are subject to many hazards; however, falls are by far the number-one cause of injury or death among construction workers.

The following requirements regulate the design, erection, dismantling, and use of scaffolds:

1. General requirements

- A. Larger scaffold sites require permits, and inspections every 30 days.
- B. Scaffolds must be provided for work that cannot be done safely by employees standing on ladders or on solid construction that is at least 20 in. wide.

Exception: A 12-inch wide plank on members that are on 24-inch (or closer) centers is permitted. 1637(a)

- C. The design of scaffolds must conform to design standards, or scaffolds must be designed by a licensed engineer. Standards are based on stress grade lumber. Metal or aluminum may be substituted if the structural integrity of the scaffold is maintained. 1637(b)
- D. Each scaffold must be designed to support its own weight and 4 times the maximum load. Maximum working loads are as follows: 1637(b)
 - i) Light-duty scaffolds: 25 psf of work platform.
 - ii) Medium-duty scaffolds: 50 psf of work platform.
 - iii) Heavy-duty scaffolds: 75 psf of work platform.
 - iv) Special-duty scaffolds exceeding 75 psf as determined by a qualified person or a California registered Civil Engineer with scaffold design experience.
- E. The erecting and dismantling of scaffolds are regulated as follows:
 - i) Scaffold erection and dismantlement must be supervised by a qualified person. 1637(k)(1)



- ii) Scaffolds must be erected and dismantled according to design standards, engineered specifications, or manufacturer's instructions. 3328, 1637(k)
- iii) A DOSH permit is required for erecting and dismantling scaffolds that exceed three stories or 36 ft. in height. 341(d)(S)(B)

2. Scaffold access

Ladders, horizontal members, and stairways must provide safe and unobstructed access to all platforms. The equipment must be located so that its use will not disturb the stability of the Scaffold: 1637(n)

A. Ladders may be used if the following applies:

April 2007 Update

Scaffolds

Section 1637, General Requirements: Manufactured hook-on ladders shall be securely attached to the scaffold, must be designed for the type of scaffold used, have a minimum rung length of 11-1/2 inches, and be uniformly spaced with maximum spacing between rungs of 16-3/4 inches.

<http://www.dir.ca.gov/Title8/1637.html>

- i) Ladder use must comply with Article 25 in the CSOs.
 - ii) Ladders must be securely attached to scaffolds.
 - iii) Ladders must extend 3 ft. above the platform, or handholds must be provided. 1675(i)
- B. Horizontal members built into the end frame of a scaffold may be used to access platforms if the following applies:
- i) The horizontal members are parallel and level.
 - ii) The horizontal members make a continuous ladder, bottom to top, with the ladder sides of the frames in a vertical line.
 - iii) The horizontal members provide sufficient clearance for a good handhold and foot space. 1637(n), 1644(a)
- C. Stairways must conform to the following:
- i) Permanent stairways must comply with GISO requirements. 1637(n)(2)
 - ii) Prefabricated scaffold stairs must comply with ANSI 10.8-1988. 1637(n)(2)



D. Scaffolds must be secured as follows:

- i) Scaffolds must be tied off with a double-looped No. 12 iron wire or a single-looped No. 10 iron wire or the equivalent. A compression member should prevent scaffold movement toward the structure. 1640,1641,1644
- ii) Light duty wooden pole scaffolds must be tied off every 20-ft. horizontally and vertically. 1640(b)
- iii) Heavy-trade wooden pole scaffolds must be tied off every 15-ft. horizontally and vertically. 1641(f)
- iv) Metal scaffolds must be tied off as specified in 1644(a)(5). 1644(a)(S)

E. Scaffold platforms must conform to the following:

- i) Platforms must be capable of supporting the intended load. 1644(a)(l), 1637(m)
- ii) Platforms must be planked solid (without gaps) and cover the entire space between scaffold uprights. 1640(b), 1641(g), 1644(a), 1646(e)

Exception: In solid planking the following gaps are permissible:

a) *The opening under the back railing*

- *Wood scaffolds: 8 in. (max.) horizontal. 1640(b)(S)*
- *Metal scaffolds: 10 in. (max.) horizontal. 1644(a)(7)*

b) *Space between the building (structure) and the platform*

- *Wood scaffolds: 14 in. (max.). 1640(b)(S)*
- *Metal scaffolds: 16 in. (max.). 1644(a)(7)*
- *Bricklayers scaffolds: 7 in. (max.) to finished face of building. 1641(g)(2.)*

iii) Platform minimum widths are as follows:

- a) Light duty: 20 in. 1640(b)(S)
- b) Heavy trades: 4 ft. 1641(c)

iv) Platform slope must not exceed 2 ft. vertically to 10 ft. horizontally. 1637(0)

v) Overhead protection is required when people are working overhead. 1637(q)

vi) Slippery platform conditions are prohibited. 1637(p)

F. Planking must conform as follows:

- i) Planking must be made of scaffold grade (structural plank 2200 Psi) lumber (see 1504) with a nominal dimension of 2" x 10". 1637(f)(l)
- ii) Planking shall not exceed a maximum span as follows:
 - a) *Light trades @ 25 psf = 10 ft.*
 - b) *Medium trades @ 50 psf = 8 ft.*
 - c) *Heavy trades @ 75 psf = 7 ft.*



iii) Planking shall overhang the ledger or support as follows:

- a) A minimum of 6 in. 1640(b), 1645(b)
- b) A maximum of 18 in. 1637(g), 1645(b)

iv) A single plank (up to 4 ft. high) is only permitted on light-trade wooden pole and horse scaffolds. 1640(b)(S)(A) and 1647(e)(2)

G. Guardrails must be installed on open sides and ends of platforms that are 7 1/2 ft. or higher. 1621(a)

Exception: 1644(a)(6)(A), (B)

April 2007 Update

Scaffolds

Section 1644, Metal Scaffolds: "X" bracing is acceptable as a midrail if the intersection of the "X" falls between 20 and 30 inches (reduced from 36 inches) from the work platform.

<http://www.dir.ca.gov/Title8/1644.Html>

- i) X braces that substitute for a midrail must intersect 20 in. to 36 in. above the platform.
- ii) X-braces that substitute for a top rail must intersect 42 in. to 48 in. above the platform, and a midrail must be placed at 19 in. to 25 in. above the platform.

H. Toeboards are required on all railed sides of work surfaces where employees work or pass below. 1621(b)

I. Height limits for scaffolding are as follows:

- i) Wood (frame/post) = 60 ft. 1643
- ii) Tube and coupler = 125 ft. 1644(b)(4)
- iii) Tubular (welded) = 125 ft. 1644(c)(7)
- iv) Horse (single) = 10 ft. 1647(b)(2)
- v) Horse (tiered) = 10 ft. 1647(b)(2)

Exception: These limits do not apply when the scaffolding is designed by an engineer (Ca PE).

J. Prohibited scaffolds and supports: 1637(j)

- i) Shore scaffolds
- ii) Jack scaffolds (with brackets attached to single studs)
- iii) Lean-to scaffolds d. Stilts



iv) *Nailed brackets f. Brick or blocks*

v) *Loose tile*

vi) *Unstable objects*

K. Maximum scaffold working load must be posted or provided to and available from, jobsite supervisor. 1637(b)(6)

L. Prohibited work practices

i) Work on or from scaffolds during storms or high winds unless:

a) A qualified person has determined that it is safe and

b) Employees are protected by a personal fall arrest system, or wind screens. 1637(u)

Note: Wind screens shall not be used unless the scaffold is secured against the anticipated wind forces. 1637(u)

ii) Wood platforms shall not be painted with opaque finishes, but can be coated with certain clear finishes 1637(v)

3. Scaffold-specific requirements

The requirements listed below are unique to each type of scaffold listed, and they replace or augment the general requirements.

A. Tubular welded scaffold systems

These scaffold systems are commercially fabricated and must meet the following requirements:

i) *Frames must nest with coupling or stacking pins to provide proper vertical alignment. 1644(c)(5)*

ii) *Frame panels must be vertically pinned if uplift may occur. 1644(c)(6)*

B. Tower and rolling scaffolds

The specifications for tower and rolling scaffolds are as follows:

i) *The "height-to-base" must not exceed 3:1 unless the scaffold is secured. 1646(a)*

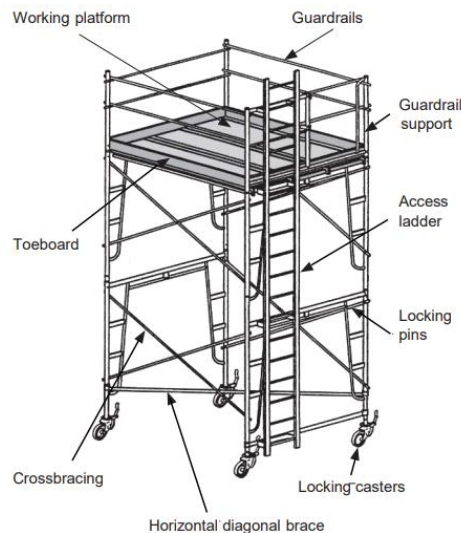
ii) *The following conditions must exist if employees ride on a rolling scaffold:*

a) The minimum dimension of the scaffold base, when the scaffold is ready for rolling, is at least half of the height. If outriggers are used to meet this requirement, they must be installed on both sides of the staging.

b) The floor or surface is within 3 of level and free from pits, holes, or obstructions.

- c) A rolling scaffold less than 50 ft. high must be equipped with rubber wheels or similarly resilient tires. Metal wheels may be used for towers 50 ft. or higher. 1646(f)
 - iii) A screw jack must extend 1/3 of its length into the leg tube, and the exposed thread must not exceed 12 in. 1646(b)(2)
 - iv) Two wheels, or casters, must swivel; all four must lock. 1646(c)
 - v) A fully planked platform is required. 1646(e)
 - vi) All frame and center joints shall be locked together by lock pins, bolts, or equivalent fastenings. 1646(d)
 - vii) The scaffold must have horizontal diagonal bracing (see Illustration 9). 1646(b)
 - viii) Railings are required if the platform is 7 1/2 ft. or more above grade. 1646(b)
- C. General requirements for suspended scaffolds (swing staging). (1658) Most suspended scaffolding has a two-point suspension supported by hangers or stirrups. The following applies:

Illustration 9 | Tower and Rolling Scaffold



- i) Each wire is suspended from a separate outrigger beam or thrustout. 1658(k)
- ii) Multi-stage units or units with overhead protection must be equipped with additional suspension lines to support the scaffolding in case the primary suspension system fails. 1658(u)
- iii) The scaffold must be inspected daily and tested frequently. 1658(g)
- iv) All hoisting mechanisms and metal platforms must meet nationally recognized standards. 1658(a)



- v) *Outrigger beams must be secured in a saddle and anchored at one end to solid structure. The inboard end must be tied back. 1658(j)*
- vi) *The beam must be capable of supporting four times the intended load. 1658(j)(l)*
- vii) *Use of a ladder as a platform is prohibited even if a horizontal work surface is added. 1658(d)*
- viii) *The load limit is one person per suspension rope. 1660(a)*
- ix) *An insulated wire suspension rope is required when workers are welding, sandblasting, or using acid or corrosive solutions. 1658(f)*
- x) *A separate safety harness and lifeline are required for each worker. 1658(i), 1660(g)*
- xi) *Platform dimensions must be as follows:*
 - a) *Width= 14 in. to 36 in. 1660(d) = 24 in. to 36 in. if the platform is used by cement masons. 1661(b)*
 - b) *Span= 10 ft. (2" x 10" planks). 1660(e) = 12 ft. (2" x 12" planks). 1660(e)*
 - c) *Bolster (ledger)= 2" x 4" cross section. 1660(c)*

D. Specific requirements for suspended scaffolds

- i) **Powered suspended scaffolds. 1667**

The general rules for swing scaffolds apply except as listed below:

 - a) **The minimum platform width must be 20 in. 1667(d)**
 - b) **Railings are required on open sides and ends and on all sides if the scaffold is suspended by one rope. 1667(a)**
 - c) **The load limit is 425 lbs. for a ladder-type platform. 1667(b)**
 - d) **Controls must be of the dead-man type.**
 - e) **Load release units for fast descent are prohibited. 1667(f)(l)**
- ii) **Interior hung suspended scaffolds. 1665**

These scaffolds are of a wood- or steel-tube-and-coupler type, and they are suspended from a ceiling or roof structure. The general and suspended scaffold rules apply.

Exception:

 - a) **Suspension ropes must be wrapped twice around supporting members and ledgers. 1665(b)**
 - b) **Ends of wire rope must be secured with at least three clips.**
- iii) **Float suspended scaffolds. 1663**

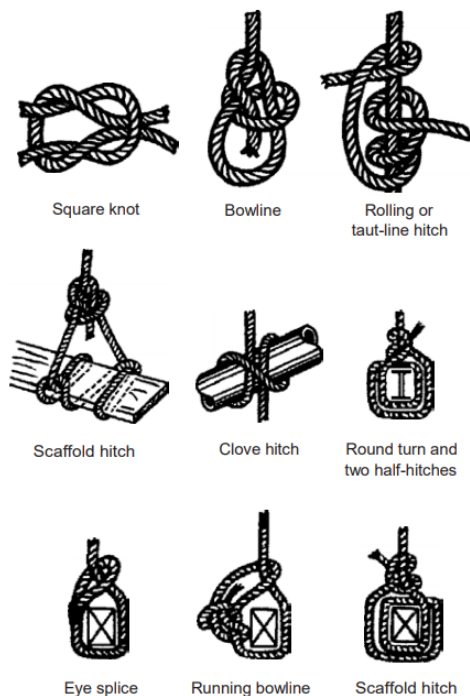
These scaffolds are intended for such work as welding, riveting, and bolting. 1663(a)

 - a) **Platform size: 3 ft. x 6 ft. x 3/4 in. plywood. 1663(a)(1)**

- b) Rope: 1-in. diameter manila (min.). 1663(a)(4)
 - c) Load limit: three people 1663(a)
 - d) Personal fall protection and a separate lifeline: required for each person. 1663(a)(S)
- iv) Boatswain's chair. 1662
- The use of a boatswain's chair requires training or experience. 1662(a)
- a) Platform size: 10 in. x 24 in. x 2 in. 1662(i)
 - b) Rope: 5/8-in. diameter manila (min.) and 3/8-in. diameter protected wire for welding. 1662(j), (k)
 - c) Personal fall protection and a separate lifeline: required 1662(c)
 - d) Area below: barricaded. 1662(b)
- v) Needle Beam scaffolds. 1664
- The specifications for needle beam scaffolds are as follows:
- a) Beam size: 4 in. x 6 in. x 10 ft. 1664(a)(l)
 - b) Rope: 1 1/4-in. diameter manila 1664(a)(4)
 - c) Personal fall protection: required in accordance with Article 24 in the CSOs. 1664(a)(12)

Note: See the hitches for holding needle beams in Illustration 10.

Illustration 10 | Hitches for Holding Needle Beams





vi) Outrigger scaffolds. 1645

Outrigger scaffolds are regulated as follows:

- a) Brackets or beams must be anchored or braced against turning, twisting, or tipping. 1645(a)(l)
- b) Platform: at least two 2 in. x 10 in. planks. 1645(a)(2), 164S(b)(S)
- c) Beam size: 3 in. x 12 in. (min.) 1645(a)(2)
- d) Beam length: Outboard of fulcrum must not exceed 6 ft; inboard must be 11/2 times the outboard section. 1645(a)(l)

Note: For multi-level structures the units must be designed by an engineer (Ca PE).164S(a)(3)

vii) Bracket scaffolds (light trades). 1645

Brackets must be bolted through walls, welded to tanks, properly secured to metal studs, or hooked over a supporting member. 164S(d)

- a) Platform: 20 in. x 10 ft. (min.)
- b) Load limit: carpenter's type= two workers and 75 lbs. of equipment. 1645(e)(4)

viii) Horse scaffolds. 1647

The specifications for horse scaffolds are as follows:

- a) Platform width:
 - Light trades= 20 in. (min.); 10 in. if the platform is less than 4 ft. high
 - Heavy trades= 4 ft. (min.). 1647(e)(2)
- b) Width of base legs= 1/2 x height (min.). 1647(a)(3)
- c) Height:
 - Collapsible horse= 6 ft. (max.) 1647(d)(2)
 - Single horse= 10 ft. (max.). 1647(e)(1)
 - Two tiers (max.) = 10 ft. (max.). 1647(e)(l)

ix) Ladder jack scaffolds. 1648

The specifications for ladder jack scaffold platforms are as follows:

- a) Span= 16 ft. (max.) 1648(b)
- b) Height= 16 ft. (max.) 1648(a)
- c) Width= 14 in. (min.) 1648(b)
- d) Load= two workers (max.) 1648(a)

Note:

- **Ladders must be commercial grade. 1648(d)**
- **A safety line is required for each worker. 1648(c)**



- x) Window jack scaffolds. 1654
The specifications for window jack scaffolds are as follows:
 - a) Only one window per scaffold is permitted. 1654(d)
 - b) The load limit is one person per scaffold. 1654(d)
 - c) Fall protection or railings are required. 1654(c)

4. Tubular Welded Frame Scaffolding Requirements Summary

A. Disclaimer:

- i) This information was derived from various sources such as the OSHA 10-hour course, Scaffolding Industry Association, Purdue Calumet Scaffolding Course, selected manufacturer specifications, and the Scaffolding, Shoring & Forming Institute. This synopsis is a quick summary of the high points of the information presented in these sources. The information has been adjusted to accommodate some of the CAL/OSHA requirements.
- ii) The objective is to provide a quick reference checklist to facilitate erection of non-complex installations of only tubular welded frame scaffolding.
- iii) Users of this information should be able to inspect scaffolding installations, assess basic characteristics and identify fundamental deficiencies.
- iv) This quick reference is not intended to serve as a CAL/OSHA approved inspection checklist.

B. Basic Requirements:

- i) Foundation:
 - a) The frame legs should rest on metal base plates.
 - b) If legs cannot rest on firm concrete or hard surfaces, wood sills 2x10x10" should be provided underneath. Base plates should be nailed to the sills with at least two nails.
 - c) Frame legs should be leveled using screw jacks, not makeshift support such as blocks or pallets.
 - d) Frames should be square, equally spaced, plumb, and legs should not be damaged or bent.
- ii) Bracing:
 - a) X-bracing should be installed in accordance with either professional engineer's or manufacturer's design and erection specifications such that the 4:1 safety factor is achieved.
 - b) For light trade scaffold systems, only one manufacturer allows an X-bracing pattern called the "West Coast Bracing Method". This method requires inside and outside X-bracing for all bays at each end, corner, adjacent to openings, in areas where legs could be damaged, plus at least every other bay in between.



The X-bracing should also apply to every bay vertically. Horizontal bracing should be added where X-bracing is not installed.

- c) In the absence of manufacturer's published design and erection specifications allowing the "West Coast Bracing Method," then every bay should be X-braced on both faces. Deviation from this method requires a site-specific professional engineering design.
- d) Masonry scaffolding does not qualify for the "West Coast Bracing Method" and should be X-braced every bay inside and outside.
- e) Braces should be secured to the attachment points provided on the frames, not secured by tie-wire.
- f) Bracing should maintain scaffolding square, level, plumb and structurally sound.
- g) Bracing removed to access inside work should be replaced immediately.

iii) Fall Protection/Railings:

- a) For platforms over 7 Yi feet, fall protection and/or railing systems are required.
- b) Inside railings are required for platforms over 7 Yi feet high and greater than 16 inches from the face of work.
- c) Railings should have the top rail installed at 42-45-inch heights and the mid rail installed at the midway point.
- d) X-bracing can substitute for either top or mid rails but not both. Intersections must fall at 42-48 inches (top rail) or 20-36 inches (mid rail).
- e) Top and mid-level end rails should be provided.
- f) Guard-rails should be capable of withstanding 200 lb. movement.
- g) Railings removed to allow for loading of materials onto work platforms should be promptly replaced.

iv) Ties/Securing to Structures:

- a) If the height-to-base ratio exceeds 3:1, the system should be secured to the structure.
- b) The first ties should be installed on the strongest portion of the frame no higher than (3) times the minimum base dimension.
- c) System should be tied at the ends, and inside the system at 26 ft vertical intervals and 30 ft horizontal intervals. The top work level should also be tied.
- d) Ties should provide tension (# 12 wire double wrapped) as well as compression and sway support.
- e) Ties should be maintained in good condition and should not be removed prematurely.

v) Platforms/Decking:

- a) All work levels should be fully planked across the width of the frames with 2x10" planking.



- b) Work decks should be level.
- c) Planks should be scaffold grade with no significant splitting.
- d) Planks should overlap at the frame supports a minimum of 6 inches and a maximum of 18 inches.
- e) Planks should rest only on frame supports and not on other planks or brace members.

vi) Toe-boards:

- a) Toe-boards are required on each bay over openings and over areas where workers may be stationed below.
- b) If toe-boards are not installed, the areas below and adjacent to the scaffolding should be barricaded to prevent access.

vii) Access:

- a) Access methods can include ladders, ladder frames, stair towers, ramps, walkways and personnel hoists, etc.
- b) Frames or braces should not be used as access ladders unless so designed.
- c) If ladder frames are used, they should be aligned properly in a vertical direction.
- d) If ladders are used, rest platforms need to be provided at every 35 ft vertical interval.
- e) If ladders are used, their heights should extend three feet above the top landing.

viii) Capacity/Design/Inspection Issues:

- a) CAL/OSHA permits are required for scaffolding over 36 feet in height.
- b) For systems with multiple work decks, engineering design should be utilized if the intended load could exceed structural capacity of the legs with 4:1 safety factor. Furthermore, scaffolds over 125 feet in height from the base-plates (one work deck only) should be designed by a professional engineer.
- c) A scaffold system should be designed by a qualified person, then constructed and loaded in accordance with the design.
- d) Manufacturer's design/erection guidelines supersede those of OSHA.
- e) Manufacturer's guidelines and/or professional engineering drawings should be available for review.
- f) Do not mix components from different manufacturers.
- g) Frames stacked on top of each other should be fastened together with couplers and coupling/pigtail pins to compensate for uplift.
- h) Where wind loads could occur, engineering design should be utilized.



- i) A qualified person should supervise erection and perform inspections for visible defects prior to each work shift and after any occurrence which could affect the integrity of the system.
- j) All workers using, erecting, dismantling, repairing, maintaining, or moving the scaffolding should receive appropriate training from a competent person.
- k) Scaffolding which is in the process of erection, dismantling, or in unsafe condition for any other reason should be tagged out-of-service.



SCAFFOLD INSPECTION CHECKLIST

Tubular Welded Scaffolding Only- California Requirements

Project Name: _____ Date: _____

INSPECTION ITEM	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>COMMENTS</u>
<u>Foundation:</u>				
Are frame legs resting on metal base plates?				
If legs cannot rest on firm concrete or hard surfaces, are wood sills having 2x10x10" minimum dimensions provided underneath?				
Are metal base plates nailed to the wood sills with at least two nails?				
Are frame legs properly leveled using screw jacks, not makeshift supports such as blocks or pallets?				
Are frames installed square, equally spaced, and plumb?				
Are frame legs and other support components in satisfactory condition, not damaged or bent?				
<u>Bracing:</u>				
Is X-bracing installed in accordance with registered engineer's or manufacturer's design and erection specifications such that the 4:1 safety factor is achieved?				
If "West Coast Bracing Method" is allowed, (must be light trade system and have manufacturer's design/erection specifications), is inside and outside X-bracing provided for all bays at each end, corner, adjacent to openings, in areas where legs could be damaged, plus at least every other bay in between?				
If the scaffolding is not X-braced every bay and no manufacturer's design and erection specifications are available to allow less bracing, is a site-specific registered engineer's design available which allows alternative bracing patterns?				



INSPECTION ITEM	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>COMMENTS</u>
Is the same X-bracing pattern applied to every bay vertically?				
Is horizontal bracing installed wherever X-bracing is not installed?				
If the scaffolding is being used for masonry work, is X- bracing installed on every bay (vertically and horizontally) inside and outside?				
Are braces properly secured to the designated attachment points provided on the frames without using tie-wire?				
Does bracing maintain the scaffolding square, level, Plumb and structurally sound?				
Have braces that were removed to access inside work been promptly replaced?				
<i>Fall Protection/Railings:</i>				
Is the scaffolding work platform greater than 7 Yi feet in height?				
Are inside railings provided for platforms over 7 Y, feet high and greater than 16 inches from the face of work?				
Are top railings installed at 42 - 45-inch heights?				
Are mid railings installed at the midway point?				
Is X-bracing is substituted for either top or mid rails (but not both), do intersections fall at 42-48 inches (top rail) or 20-36 inches (mid rail)?				
Are top and mid-level end rails provided?				
Are guard-rails capable of withstanding 200 lb. movement?				
Have railings that were removed to load materials onto the platforms been promptly replaced?				
<i>Ties Securing to Structures:</i>				
Is the scaffolding system height greater than (3) times its minimum base dimension? (Height-to-base ratio exceeds 3:1)?				



INSPECTION ITEM	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>COMMENTS</u>
Is the first row of ties installed on the strongest portion of the frames at a height no higher than (3) times the minimum base dimension?				
Are ties installed at the scaffolding ends and on the inside at 26 ft vertical intervals and 30 ft horizontal intervals?				
Is the top work level properly tied?				
Do the ties provide tension (#12 wire double wrapped) as well as compression and sway support?				
Are ties maintained in good condition, not removed prematurely?				
<u>Platforms Decking:</u>				
Are all work levels fully planked across the width of the frames with 2x10" planking?				
Are planks scaffold grade with no significant splitting?				
Do all planks rest on frame supports and not on other planks or brace members?				
Do planks overlap at the frame supports a minimum of 6 inches and a maximum of 18 Inches?				
Are all work decks level?				
<u>Toe-boards:</u>				
Are toe-boards installed on each bay over openings and over areas where workers may be stationed below?				
If toe-boards are not installed, is the area below and adjacent to the scaffolding barricaded to prevent access?				
<u>Access:</u>				
Does the scaffolding have proper access methods available such as ladders, ladder frames, stair towers, ramps, walkways, personnel hoists?				
If ladder frames are provided, are they aligned properly in the vertical direction?				



INSPECTION ITEM	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>COMMENTS</u>
If ladders are used, do their heights extend three feet above the top landings?				
If ladders are used, are rest platforms provided at every 35 ft. vertical interval?				
<i>Capacity/Design/Inspection Issues:</i>				
If the scaffold system exceeds 36 feet in height, is a CAL/OSHA permit available?				
If the scaffold system has multiple work decks, has engineering design been utilized to ensure the load (weight of scaffold plus maximum intended load) will not exceed structural capacity of the legs and the 4:1 safety factor?				
If the scaffold system exceeds 125 feet in height, has it been designed by a professional engineer and is the design drawing available for review?				
Has the scaffold system been designed by a qualified person, then constructed and loaded in accordance with the design?				
Are all scaffold components used in the scaffolding system obtained from the same manufacturer?				
Are manufacturer's design/erection guidelines available for reference?				
If frames are stacked on top of each other, are they fastened together with couplers and coupling/pigtail pins to compensate for uplift?				
Where severe wind loads could occur (e.g., tarps on scaffolding), has engineering design been utilized?				
Are inspections being performed for visible defects prior to each work shift and after any occurrence that could affect the system integrity?				
Have all workers using, erecting, dismantling, repairing, maintaining, or moving the scaffolding received appropriate training from a competent person?				
Is scaffolding which is in the process of erection, dismantling, or in unsafe condition for any other reason property tagged out of service?				
Has a qualified person supervised the erection of the scaffolding?				



I have inspected the scaffold components and the erection method and found the scaffold system structurally sound and safe to use.

Name of Qualified/Competent Person

Date of Inspection



DEB Construction, LLC

Forklift & Powered Industrial Trucks

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities with Forklift & Powered Industrial Trucks.

SCOPE

Only employees who have been trained in the requirements of confined spaces standards can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of working with lead and associated hazards to personnel and the public.



Safe Operation

- The employer shall ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of the training and evaluation specified in this section.
- Prior to permitting an employee to operate a powered industrial truck (except for training purposes), the employer shall ensure that each operator has successfully completed the training required by this section, except as permitted in subsection (e).
- Industrial trucks shall be examined before being placed in service, and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily.
- Where industrial trucks are used on a round-the-clock basis, they shall be examined after each shift. Defects when found shall be immediately reported and corrected.

Training program implementation

Trainees may operate a powered industrial truck only:

- Under the direct supervision of persons who have the knowledge, training and experience to train operators and evaluate their competence. All operator training and evaluation shall be conducted by persons who have the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence
- Where such operation does not endanger the trainee or other employees.
- Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee) and evaluation of the operator's performance in the workplace.
- All operator training and evaluation shall be conducted by persons who have the knowledge, training and experience to train powered industrial truck operators and evaluate their competence.

Training program content

Powered industrial truck operators shall receive initial training in the following topics, except in topics which the employer can demonstrate are not applicable to the safe operation of the truck in the employer's workplace.

- Truck-related topics:
 - Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate;
 - Differences between the truck and the automobile;
 - Truck controls and instrumentation: where they are located, what they do, and how they work;
 - Engine or motor operation;



- Steering and maneuvering;
 - Visibility (including restrictions due to loading);
 - Fork and attachment adaptation, operation, and use limitations;
 - Vehicle capacity;
 - Vehicle stability;
 - Any vehicle inspection and maintenance that the operator will be required to perform;
 - Refueling and/or charging and recharging of batteries;
 - Operating limitations;
 - Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate.
- Workplace-related topics:
 - Surface conditions where the vehicle will be operated;
 - Composition of loads to be carried and load stability;
 - Load manipulation, stacking, and unstacking;
 - Pedestrian traffic in areas where the vehicle will be operated;
 - Narrow aisles and other restricted places where the vehicle will be operated;
 - Hazardous (classified) locations where the vehicle will be operated;
 - Ramps and other sloped surfaces that could affect the vehicle's stability;
 - Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a build-up of carbon monoxide or diesel exhaust;
 - Other unique or potentially hazardous conditions in the workplace that could affect safe operation.

Refresher training and evaluation

Refresher training, including an evaluation of the effectiveness of that training, shall be conducted as required by subsection (d)(1) to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely.

- Refresher training in relevant topics shall be provided to the operator when:
 - The operator has been observed to operate the vehicle in an unsafe manner;
 - The operator has been involved in an accident or near-miss incident;
 - The operator has received an evaluation that reveals that the operator is not operating the truck safely;
 - The operator is assigned to drive a different type of truck; or
 - A condition in the workplace changes in a manner that could affect safe operation of the truck.
- An evaluation of each powered industrial truck operator's performance shall be conducted at least once every three years.

Avoidance of duplicative training



If an operator has previously received training in a topic specified in subsection (c) of this section, and such training is appropriate to the truck and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the truck safely.

Certification

The employer shall certify that each operator has been trained and evaluated as required by this section. The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation.

Dates

The employer shall ensure that operators of powered industrial trucks are trained, as appropriate, in accordance with the following dates:

- If the employee was hired before July 15, 2000, the initial training and evaluation of that employee must be completed by July 15, 2000;
- If the employee was hired after July 15, 2000, the initial training and evaluation of that employee must be completed before the employee is assigned to operate a powered industrial truck.

Exception: Agricultural operations as defined in Section 3437 of the General Industry Safety Orders are exempt from the requirements of Section 3668.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

Aerial Lifts

An aerial lift is any vehicle-mounted device used to elevate personnel, including:

- Extendable boom platforms,
- Aerial ladders,
- Articulating (jointed) boom platforms,
- Vertical towers, and
- Any combination of the above.

Aerial lifts have replaced ladders and scaffolding on many job sites due to their mobility and flexibility. They may be made of metal, fiberglass-reinforced plastic, or other materials. They may be powered or manually operated, and are considered to be aerial lifts whether or not they can rotate around a primarily vertical axis.

Many workers are injured or killed on aerial lifts each year.

OSHA provides the following information to help employers and workers recognize and avoid safety hazards they may encounter when they use aerial lifts.

Hazards Associated with Aerial Lifts

The following hazards, among others, can lead to personal injury or death:

- Fall from elevated level,
- Objects falling from lifts,
- Tip-overs,
- Ejections from the lift platform,
- Structural failures (collapses),
- Electric shock (electrocutions),
- Entanglement hazards,
- Contact with objects, and
- Contact with ceilings and other overhead objects.

Training

Only trained and authorized persons are allowed to operate an aerial lift. Training should include:

- Explanations of electrical, fall, and falling object hazards;
- Procedures for dealing with hazards;
- Recognizing and avoiding unsafe conditions in the work setting;
- Instructions for correct operation of the lift (including maximum intended load and load capacity);
- Demonstrations of the skills and knowledge needed to operate an aerial lift before operating it on the job;
- When and how to perform inspections; and
- Manufacturer's requirements.

Retraining

Workers should be retrained if any of the following conditions occur:

- An accident occurs during aerial lift use,
- Workplace hazards involving an aerial lift are discovered, or
- A different type of aerial lift is used.

Employers are also required to retrain workers who they observe operating an aerial lift improperly.

What to Do Before Operating an Aerial Lift

Pre-start Inspection

Prior to each work shift, conduct a pre-start inspection to verify that the equipment and all its components are in safe operating condition. Follow the manufacturer's recommendations and include a check of:

Vehicle components

- Proper fluid levels (oil, hydraulic, fuel and coolant);
- Leaks of fluids;
- Wheels and tires;
- Battery and charger;
- Lower-level controls;
- Horn, gauges, lights and backup alarms;
- Steering and brakes.

Lift components

- Operating and emergency controls;
- Personal protective devices;
- Hydraulic, air, pneumatic, fuel and electrical systems;
- Fiberglass and other insulating components;
- Missing or unreadable placards, warnings, or operational, instructional and control markings;
- Mechanical fasteners and locking pins;
- Cable and wiring harnesses;
- Outriggers, stabilizers and other structures;
- Loose or missing parts;
- Guardrail systems.

Do not operate any aerial lift if any of these components are defective until it is repaired by a qualified person. Remove defective aerial lifts from service (tag out) until repairs are made.

Work Zone Inspections

Employers must assure that work zones are inspected for hazards and take corrective actions to eliminate such hazards before and during operation of an aerial lift. Items to look for include:

- Drop-offs, holes, or unstable surfaces such as loose dirt;
- Inadequate ceiling heights;
- Slopes, ditches, or bumps;
- Debris and floor obstructions;
- Overhead electric power lines and communication cables;
- Other overhead obstructions;
- Other hazardous locations and atmospheres;
- High wind and other severe weather conditions, such as ice; and
- The presence of others in close proximity to the work.

What to Do While Operating an Aerial Lift

Fall Protection:

- Ensure that access gates or openings are closed.
- Stand firmly on the floor of the bucket or lift platform.
- Do not climb on or lean over guardrails or handrails.
- Do not use planks, ladders, or other devices as a working position.
- Use a body harness or a restraining belt with a lanyard attached to the boom or bucket.
- Do not belt-off to adjacent structures or poles while in the bucket.

Operation/Traveling/Loading:

- Do not exceed the load-capacity limits. Take the combined weight of the worker(s), tools and materials into account when calculating the load.
- Do not use the aerial lift as a crane.
- Do not carry objects larger than the platform.
- Do not drive with the lift platform raised (unless the manufacturer's instructions allow this).
- Do not operate lower level controls unless permission is obtained from the worker(s) in the lift (except in emergencies).
- Do not exceed vertical or horizontal reach limits.
- Do not operate an aerial lift in high winds above those recommended by the manufacturer.
- Do not override hydraulic, mechanical, or electrical safety devices.

Overhead Protection:

- Be aware of overhead clearance and overhead objects, including ceilings.

- Do not position aerial lifts between overhead hazards if possible.
- Treat all overhead power lines and communication cables as energized, and stay at least 10 feet (3 meters) away.
- Ensure that the power utility or power line workers de-energize power lines in the vicinity of the work.

Stability in the Work Zone:

- Set outriggers on pads or on a level, solid surface.
- Set brakes when outriggers are used.
- Use wheel chocks on sloped surfaces when it is safe to do so.
- Set up work zone warnings, such as cones and signs, when necessary to warn others.

Insulated aerial lifts offer protection from electric shock and electrocution by isolating you from electrical ground. However, an insulated aerial lift does not protect you if there is another path to ground (for instance, if you touch another wire). To maintain the effectiveness of the insulating device, do not drill holes in the bucket.

Standards that Apply

OSHA Standards:

29 CFR 1910.67, 29 CFR 1910.269(p), 29 CFR 1926.21, 29 CFR 1926.453, 29 CFR 1926.502.

American National Standards Institutes standards:

ANSI/SIA A92.2-1969, ANSI/SIA A92.3, ANSI/SIA A92.5, ANSI/SIA A92.6.

Additional Information

OSHA has a variety of publications, standards, technical assistance and compliance tools to help you. OSHA also offers extensive assistance through workplace consultations, grants, strategic partnerships, state plans, training and education. OSHA's Safety and Health Program Management Guidelines (54 Federal Register 3904-3916, January 26, 1989) detail elements critical to the development of a successful safety and health program.

To file a complaint by phone, report an emergency, or get OSHA advice, assistance, or products, contact your nearest OSHA office or call us toll-free at 1-800-321-OSHA (6742).

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; the teletypewriter (TTY) number is (877) 889-5627.

For assistance, contact us. We can help. It's confidential.



**Occupational Safety
and Health Administration**
www.osha.gov 1-800-321-6742



DEB Construction, LLC

Fall Protection Program

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform elevated work activities (greater than six feet from the ground) with various forms of fall protection or related safeguarding systems.

SCOPE

Only employees who have been trained in the requirements of fall protection standards are allowed to perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of preventing falls and associated hazards to personnel and the public.

Typical work assignments may include but are not limited to working in proximity to removed barriers, elevated and maintenance activities not protected by standard barriers and construction or maintenance activities conducted near the edge of roofs.

All DEB Construction, LLC employees will use a body harness instead of a body belt.



RESPONSIBILITIES:

MANAGEMENT

1. Train and retrain the employee how to select, use, and maintain specific fall protection.
2. Assess the workplace and determine hazards that necessitate the use of fall protection.
3. Provide necessary fall protection, which has been manufacturer tested, at no cost to the employee.
4. Determine if the walking/working surfaces have the structural integrity to support employees safely.
5. Retain certification records of trained employees.
6. Perform regular inspections of fall arrest systems.

EMPLOYEE

1. Demonstrate an understanding of the specific training.
2. Be able to use the equipment properly before being allowed to work.
3. Report defective or damaged fall protection equipment.
4. Be aware that the strength of the anchorage point is based on the fall arrest.
5. Perform pre-use inspection of fall arrest system.

DEFINITIONS:

Body Harness - means straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Deceleration Device - means any mechanism, such as a rope grab, rip-stitch lanyard, specially woven lanyard, tearing or deforming lanyards, automatic self-retracting lifelines/lanyards, etc., which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

Guardrail System - means a barrier erected to prevent employees from falling to lower levels.

Lanyard - means a flexible line of rope, wire rope, or strap, which generally has a connector at each end for connecting the body harness to a deceleration device, lifeline, or anchorage.

Personal Fall Arrest System - means a system used to arrest an employee in a fall from a working level. It consists of an anchorage; connectors, a harness, and may include a lanyard,



deceleration device, lifeline or suitable combinations of these. Safety Monitoring System - means a safety and health system in which a competent person is responsible for recognizing and warning employees of fall hazards.

Walking/working Surface - means any surface, whether horizontal or vertical, on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, and runways from work and concrete reinforcing steel, but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

PROGRAM

General – Fall protection is required for employees who are:

- Walking or working on surfaces located 6 feet or more above a lower level, or
- On scaffolds that are more than 6 feet above a lower level, or
- On fixed ladders that are more than 20 feet above a lower level, or
- When work is performed from thrust outs or similar locations, such as trusses, beams, purlins, or plates of 4-inch nominal width, or greater, at elevations exceeding 15 feet above ground, water surface, or floor level below and where temporary guardrail protection is impracticable, employees shall be required to use approved personal fall protection system, or
- When employees are placing or tying rebar in walls, columns, piers, etc. and the falls distances are 6 feet or greater, or
- At risk of falling into dangerous equipment from any height.

NOTE: For General Industry applications where DEB Construction' employees may be exposed to fall hazards, the trigger height for preventing falls is 4 feet or more. DEB Construction employees may, from time-to-time, be exposed to fall hazards when conducting work activities in the General Industry setting.

Description of types of locations and associated fall protection systems required in the construction setting:

General

- Walking / working surfaces on which employees are to work must have the strength and structural integrity to support employees safely.

Unprotected sides and edges

- A walking/working surface with an unprotected side or edge which is 6 feet or more above a lower level shall be protected from falling by use of:



- Guardrail systems or personal fall protection systems.

Holes

- Employees shall be protected from falling into holes by use of:
 - Personal fall protection systems, covers, or guardrails erected around holes.
 - Covers should also be used to protect employees from tripping or stepping into holes, or from objects falling through holes overhead.

Ramps, runways, and other walkways that are 6 feet or more above a lower level – employees shall be protected from falling by use of:

- Guardrail systems, or
- Personal fall protection systems

Excavations that are 6 feet or more in depth – employees shall be protected from falling by use of:

- Guardrail systems, fences, barricades, guard railed walkways, or covers.

Dangerous equipment

Employees shall be protected from falling into or onto dangerous equipment by use of:

- Guardrail system or equipment guards used for potential falls of less than 6 feet.
- Guardrail systems, personal fall protection systems, used for potential falls of 6 feet or more.

Roofs – See specific Section below.

Wall openings where outside bottom edge of the opening is 6 feet or more above lower levels and the inside bottom edge of the opening is less than 39 inches above the walking/working surface – employees should be protected from falling by use of:

- A guardrail system or personal fall arrest system.

Other walking/working surfaces 6 feet or more above lower levels – except as otherwise provided, employees shall be protected from falling by use of:

- A guardrail system or personal fall arrest system.

Falling Objects from higher levels

- Employees must wear a hard hat and use **one** of the following measures to prevent objects from falling:



- Erect toe boards, screens or guardrails.
- Erect a canopy and keep any loose objects far enough away from edge of the higher level to avoid accidental displacement over the edge.
- Barricade the area, prohibit employees from entering the area and keep loose objects far enough away from the edge of the higher level to avoid accidental displacement over the edge.

Fall Protection Systems Used by DEB Construction

Guardrails - Designed to protect employees from stepping off higher walking and working surfaces and to alert employees to the presence of a fall hazard.

- Guardrails consist of top rails and mid rails or intermediate structural members.
- Top edge of top rails or equivalent members shall be installed between 42 inches and 45 inches above the platform surface and support a minimum of 20 pounds per linear foot.
- Mid rails, screens, mesh, intermediate vertical members, or equivalent intermediate structural members shall be installed between the top edge of the guardrail system and the walking and working surfaces.
 - Mid rails, when used, shall be installed at a height midway between the top edge of the guardrail system and the platform surface.
 - Screens and mesh, when used, shall extend from the top rail to the walking/working level and along the entire opening between top rail supports.
 - Intermediate members (such as balusters), when used between posts, shall not be more than nineteen (19) inches apart.

Covers – Used to protect employees from falling through or into holes, excavations and other openings in floors, roofs and other walking/working surfaces.

- All covers shall be capable of supporting at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.
- All covers shall be secured when installed so as to prevent accident displacement by the wind, equipment, or employees.
- All covers shall be color coded or they shall be marked with the word “**OPENING – DO NOT REMOVE**” to provide warning of the hazard.

Personal Fall Arrest System - a suitable combination of an anchorage, connectors, deceleration device and a lanyard, lifeline and body harness. A PFP - personal fall protection system prevents a worker from falling or if the worker is falling stops the fall. PFP systems include guardrails, safety nets, personal fall restraint systems, personal fall arrest systems and positioning device systems.



- See CCR Title 8 Section 1670 for system component requirements.
- The maximum free fall distance with systems is six (6) feet, or such that an employee will not contact any lower level.
- A Personal fall protection (PFP) system is used to prevent an employee from falling. It consists of anchorages, connectors and a body belt or harness. shall be secured to anchorages that are independent of the work surface wherever possible and shall never be attached to guardrails.
- The PFP must limit the maximum arresting force on an employee to 1,800 lbs.
- IT must be rigged so that an employee can neither free fall more than 6 ft. nor contact any lower level, and, where practicable, the anchor end of the lanyard shall be secured at a level not lower than the employee's waist.
- Anchor points must be able to support 5,000 lbs. per employee attached or must be designed, installed, and used as part of a complete PFA system with a safety factor of at least two and under the supervision of a qualified person.
 - As of January 1, 1998, body belts are no longer permitted for use with personal fall arrest systems because they do not distribute the fall arrest force properly.
- Personal fall arrest systems shall be inspected prior to each use for mildew, wear, damage and other deterioration, and defective components shall be removed from service if their function or strength has been adversely affected.

Special Applications

Roof Works – Working on a roof requires extra caution because the surface is usually slick, sloped, and well above the ground.

- **General Precautions:**
 - Do not walk on a roof any more than is necessary.
 - Individuals accessing roofs shall be informed of all hazards, procedures, or unusual conditions related to each building.
 - Safe egress and access routes shall be established.
 - Stay well away from power lines and be sure neither the body nor any equipment comes into contact with them or within the safe distance range.
- **Roofing work on low-slope roofs** (roofs with slope less than 4 in 12 vertical to horizontal) with unprotected sides or edges 6 feet or more above lower levels, employees shall be protected from falling by use of:
 - Guardrail systems, personal fall protection systems, or a combination of:



- Warning line system and guardrail system.
 - Warning line system and personal fall arrest system.
 - Warning line system and safety monitoring system.
 - On roofs 50 feet or less in width, the use of a safety monitoring system without a warning line is permitted.
- **Roofing work on steep roofs** (roofs with slope greater than 4 in 12 vertical to horizontal) with unprotected sides or edges 6 feet or more above lower levels – employees should be protected from falling by use of:
 - Guardrail systems or personal fall protection systems.

Fall Protection Plans

DEB Construction will only use Fall Protection Plans ONLY when necessary and ONLY when employees are engaged in leading edge work, precast concrete erection work, or residential construction work who can demonstrate that it is infeasible, or it creates a greater hazard to use conventional fall protection equipment. When a site-specific fall protection plan is developed, it will conform to the following provisions.

- The fall protection plan shall be prepared by a qualified person and developed specifically for the site where the leading-edge work, precast concrete work, or residential construction work is being performed and the plan must be maintained up to date.
- Any changes to the fall protection plan will be approved by a qualified person.
- A copy of the fall protection plan with all approved changes will be maintained at the job site.
- The implementation of the fall protection plan will be under the supervision of a competent person.
- The fall protection plan will document the reasons why the use of conventional fall protection systems (guardrail systems, personal fall arrest systems, or safety nets systems) are infeasible or why their use would create a greater hazard.
- The fall protection plan will 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. (i.e. DEB Construction will 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 will identify each location where conventional fall protection methods cannot be used. These locations shall then be classified as controlled access zones and the employer must comply with requirements of controlled access zones.
- Where no other alternative measure has been implemented, the employer will implement a safety monitoring system in conformance with 1926.502(h).



- The fall protection plan will 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) DEB Construction will 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 will implement those changes to prevent similar types of falls or incidents.

Warning Line Systems – Used to provide fall protection on Low slope roofs.

The warning line system must be erected on all open sides of the work area and consist of stanchion posts with flagged wire, rope, or chain as follows:

- When mechanical equipment is not being used, the warning line must be erected at least six (6) feet from the roof edge.
- If mechanical equipment is being used, the warning line must be erected at least six (6) feet from roof edge parallel to the direction of travel and at least ten (10) feet from the roof edge perpendicular to the direction of travel.
- Points of access, materials handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path formed by two warning lines.
- If a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, shall be placed across the path at the point where the path intersects the warning line erected around the work area, or the path shall be offset such that a person cannot walk directly into the work area.
- The rope, wire, or chain shall be flagged at not more than six (6) foot intervals with high visibility material.
- The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than thirty-nine (39) inches from the walking/working surface and its highest point is no more than thirty-nine (39) inches from the walking/working surface.
- Warning line must have a minimum tensile strength of 200 pounds.
- No employees shall be allowed in the area between a roof edge and warning line unless the employee is performing roofing work in the area and is protected by a fall protection system.
- Mechanical equipment on roofs shall be used, maintained, or stored only in areas where employees are protected by a warning line system, guardrail system, or personal fall arrest system.

Safety Monitoring System – A competent person designated to monitor the safety of other employees.

The safety monitor shall:



- Be on the same walking/working surface and within visual sighting distance of the employee being monitored.
- Be competent to recognize fall hazards.
- Be close enough to communicate orally with the employee.
- Warn the employee when it appears that the employee is unaware of a fall hazard or is acting in an unsafe manner.
- Not have other responsibilities that could take the monitor's attention from the monitoring function.
- Mechanical equipment shall not be used or stored in areas where safety monitoring systems are being used to monitor employees engaged in roofing operations on low slope roofs.
- No employee other than the employee engaged in roofing work on low sloped roofs or an employee covered by a fall protection plan shall be allowed in an area where an employee is being protected by a safety monitoring system.

Aerial Lift

Basic Requirements

- Only authorized persons, properly trained according to operating instructions, shall be allowed to use an aerial lift.
- Employees using an aerial lift must wear a fall protection system as specified by CCR Title 8 Section 1670.
- Before each use, the employee shall visually inspect the aerial platform, including their fall protection devices.
- The surface on which the aerial platform is to be used must be sound and cleared of debris and other hazards.
- When operating an Aerial Lift, it is recommended that a ground person be present at all times in case of an emergency situation. In the event that no ground person can be assigned, lift operator shall have two-way radio communication while using lift.
- The area beneath an operating aerial lift must be cordoned off and access to that area must be restricted.

Scaffolds

General Requirements



- A scaffold must be capable of supporting its own weight and at least 4 times the maximum intended load.
- All working levels of scaffolds must be fully planked or decked.
- Scaffolds with a height to base width ratio of more than four to one shall be restrained from tipping by guying, tying, bracing or equivalent means.
- Scaffold support devices (outriggers, hooks, clamps, etc.) shall rest on surfaces capable of supporting at least 4 times the load imposed on them by the operating scaffold.
- When scaffold platforms are more than 2 feet above or below a point of access, portable ladders, ramps, walkways or similar surface should be used for access.
- Scaffolds shall not be loaded in excess of their maximum intended load or rated capacity.
- Each employee on a scaffold more than 6 feet above a lower level shall be protected from falling to that lower level by a guardrail or personal fall protection system.

Safety precautions during use

- Always climb the scaffold with both hands.
- Do not climb on braces.
- Never attempt to move a rolling scaffold from the top. The force necessary to move the scaffold should be applied as closely as practical to the base.
- Never place platform planks on guardrails to obtain greater height.
- Never place ladders or other objects on top of platform to increase height.
- Do not jump onto planks or platforms.

Other Requirements

- Prior to using specific types of scaffolds, for example: large area, ladder jack, horse or mobile scaffolds, refer to CCR Title 8, Division 1, Chapter 4, Subchapter 4, Article 22 for additional requirements which may be applicable.

Fixed ladders – a ladder that cannot be readily moved or carried because it is an integral part of a building or structure.

- Employees using fixed ladders with a length greater than 20 feet to a maximum unbroken length of 30 feet shall be protected by:
 - Cages conforming to requirements in CCR Title 8 Section 3277(g), or
 - Wells conforming to requirements in CCR Title 8 Section 3277(g), or
 - Ladder safety devices conforming to requirements in CCR Title 8 Section 3277(m).



- Fixed ladders shall be maintained free of oil, grease or other slipping hazards.
- Fixed ladders with structural defects shall be withdrawn from service until repaired. This requirement can be satisfied by:
 - Tagging with “Do Not Use” or similar language.
 - Marking it in a matter that readily identifies it as defective.
 - Blocking it from use (for example with a plywood attachment spanning several rungs).

Training

Fall protection training programs are designed to enable each employee to recognize the hazards of falling and to instruct each employee in the procedures to be followed to minimize these hazards. Employees shall be trained in the following areas:

- The nature of fall hazards in the work area.
- The correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems.
- The use and operation of guardrail, personal fall protection, warning line, and safety monitoring systems.
- The role of each employee in the safety monitoring system when the system is in use.
- The limitations on the use of mechanical equipment and materials handling and storage and the erection of overhead protection.
- Employees’ role in fall protection plans.
- Employees who use an aerial lift must complete the appropriate, company-sponsored training program and a “hands on” training session to demonstrate competence prior to use.
- Re-training shall be required when:
 - Changes in the workplace render previous training obsolete.
 - Changes in the types of fall protection systems or equipment to be used render previous training obsolete.
 - Affected employees fail to retain the knowledge and skill provided by the training.



DEB Construction, LLC

Respiratory Program

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities involving respirators.

SCOPE

Only employees who have been trained in the requirements of the respiratory program standards can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of working with respiratory program for personnel and the public.



(a) Permissible practice.

(1) In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to this section.

(2) Respirators shall be provided by DEB when such equipment is necessary to protect the health of the employee. DEB shall provide the respirators which are applicable and suitable for the purpose intended. DEB shall be responsible for the establishment and maintenance of a respiratory protection program which shall include the requirements outlined in subsection (c). Employees that are exposed to airborne contaminants will must wear respiratory equipment.

(b) Definitions. The following definitions are important terms used in the respiratory protection standard in this section.

Air-purifying respirator means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Assigned protection factor (APF) means the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when DEB implements a continuing, effective respiratory protection program as specified by this section.

Atmosphere-supplying respirator means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

Canister or cartridge means a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

Demand respirator means an atmosphere-supplying respirator that admits breathing air to the facepiece only when a negative pressure is created inside the facepiece by inhalation.



Emergency situation means any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.

Employee exposure means exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

End-of-service-life indicator (ESLI) means a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.

Escape-only respirator means a respirator intended to be used only for emergency exit.

Filter or air purifying element means a component used in respirators to remove solid or liquid aerosols from the inspired air.

Filtering facepiece (dust mask) means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Fit factor means a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

Fit test means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)

Helmet means a rigid respiratory inlet covering that also provides head protection against impact and penetration.

High efficiency particulate air (HEPA) filter means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

Hood means a respiratory inlet covering that completely covers the head and neck and may also cover portions of the shoulders and torso.

Immediately dangerous to life or health (IDLH) means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.



Interior structural firefighting means the physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage. (See Article 10.1)

Loose-fitting facepiece means a respiratory inlet covering that is designed to form a partial seal with the face.

Maximum use concentration (MUC) means the maximum atmospheric concentration of a hazardous substance from which an employee can be expected to be protected when wearing a respirator, and is determined by the assigned protection factor of the respirator or class of respirators and the exposure limit of the hazardous substance. The MUC can be determined mathematically by multiplying the assigned protection factor specified for a respirator by the required OSHA permissible exposure limit, short-term exposure limit, or ceiling limit. When no OSHA exposure limit is available for a hazardous substance, an DEB must determine an MUC on the basis of relevant available information and informed professional judgment.

Negative pressure respirator (tight fitting) means a respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

Oxygen deficient atmosphere means an atmosphere with an oxygen content below 19.5% by volume.

Physician or other licensed health care professional (PLHCP) means an individual whose legally permitted scope or practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by subsection (e).

Positive pressure respirator means a respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

Powered air-purifying respirator (PAPR) means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

Pressure demand respirator means a positive pressure atmosphere-supplying respirator that admits breathing air to the facepiece when the positive pressure is reduced inside the facepiece by inhalation.

Qualitative fit test (QLFT) means a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.



Quantitative fit test (QNFT) means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

Respiratory inlet covering means that portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

Self-contained breathing apparatus (SCBA) means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

Service life means the period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

Supplied-air respirator (SAR) or airline respirator means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

Tight-fitting facepiece means a respiratory inlet covering that forms a complete seal with the face.

User seal check means an action conducted by the respirator user to determine if the respirator is properly seated to the face.

(c) Respiratory protection program. This subsection requires DEB to develop and implement a written respiratory protection program with required worksite-specific procedures and elements for required respirator use. The program must be administered by a suitably trained program administrator. In addition, certain program elements may be required for voluntary use to prevent potential hazards associated with the use of the respirator. The Small Entity Compliance Guide contains criteria for the selection of a program administrator and a sample program that meets the requirements of this subsection. Copies of the Small Entity Compliance Guide will be available from the Occupational Safety and Health Administration's Office of Publications, Room N 3101, 200 Constitution Avenue, NW, Washington, DC, 20210 (202-219-4667).

(1) In any workplace where respirators are necessary to protect the health of the employee or whenever respirators are required by DEB, DEB shall establish and implement a written respiratory protection program with worksite-specific procedures. The program shall be updated as necessary to reflect those changes in workplace conditions that affect respirator use. DEB shall include in the program the following provisions, as applicable:

(A) Procedures for selecting respirators for use in the workplace;



- (B) Medical evaluations of employees required to use respirators;
 - (C) Fit testing procedures for tight-fitting respirators;
 - (D) Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations;
 - (E) Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators;
 - (F) Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators;
 - (G) Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations;
 - (H) Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance, employees must be clean-shaven to use respiratory equipment; and
 - (I) Procedures for regularly evaluating the effectiveness of the program.
- (2) Where respirator use is not required:
- (A) An DEB may provide respirators at the request of employees or permit employees to use their own respirators, if DEB determines that such respirator use will not in itself create a hazard. If DEB determines that any voluntary respirator use is permissible, DEB shall provide the respirator users with the information contained in Appendix D to this section ("Information for Employees Using Respirators When Not Required Under the Standard"); and
 - (B) In addition, DEB must establish and implement those elements of a written respiratory protection program necessary to ensure that any employee using a respirator voluntarily is medically able to use that respirator, and that the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the user. Exception: DEBs are not required to include in a written respiratory protection program those employees whose only use of respirators involves the voluntary use of filtering facepieces (dust masks).
- (3) DEB shall designate a program administrator who is qualified by appropriate training or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness.



(4) DEB shall provide respirators, training, and medical evaluations at no cost to the employee.

(d) Selection of respirators. This subsection requires DEB to evaluate respiratory hazard(s) in the workplace, identify relevant workplace and user factors, and base respirator selection on these factors. The subsection also specifies appropriately protective respirators for use in IDLH atmospheres, and limits the selection and use of air-purifying respirators.

(1) General requirements.

(A) DEB shall select and provide an appropriate respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.

(B) DEB shall select a NIOSH-certified respirator. The respirator shall be used in compliance with the conditions of its certification.

(C) DEB shall identify and evaluate the respiratory hazard(s) in the workplace; this evaluation shall include a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. Where DEB cannot identify or reasonably estimate the employee exposure, DEB shall consider the atmosphere to be IDLH.

(D) DEB shall select respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.

(2) Respirators for IDLH atmospheres.

(A) DEB shall provide the following respirators for employee use in IDLH atmospheres:

1. A full facepiece pressure demand SCBA certified by NIOSH for a minimum service life of thirty minutes, or

2. A combination full facepiece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.

(B) Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.

(C) All oxygen-deficient atmospheres shall be considered IDLH.



Exception: If DEB demonstrates that, under all foreseeable conditions, the oxygen concentration can be maintained within the ranges specified in Table II (i.e., for the altitudes set out in the table), then any atmosphere-supplying respirator may be used.

(3) Respirators for atmospheres that are not IDLH.

(A) DEB shall provide a respirator that is adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements, under routine and reasonably foreseeable emergency situations.

1. Assigned Protection Factors (APFs) DEBs must use the assigned protection factors listed in Table 1 to select a respirator that meets or exceeds the required level of employee protection. When using a combination respirator (e.g., airline respirators with an air-purifying filter), DEBs must ensure that the assigned protection factor is appropriate to the mode of operation in which the respirator is being used.

Table 1. - Assigned Protection Factors⁵

Type of respirator ^{1,2}	Quarter		Full		Loose-
	mask	Half mask	facepiece	Helmet/hood	fitting facepiece
1. Air-Purifying Respirator	5	³ 10	50	.....	.....
2. Powered Air-Purifying Respirator (PAPR)		50	1,000	⁴ 25/1,000	25
3. Supplied-Air Respirator (SAR) or Airline Respirator					
Demand mode	.....	10	50	.....	.....
Continuous flow mode	.....	50	1,000	⁴ 25/1,000	25
Pressure-demand or other positive-pressure mode	.....	50	1000	.....	.....
4. Self-Contained Breathing Apparatus (SCBA)					
Demand mode	.....	10	50	50	.....
Pressure-demand or other positive-pressure mode (e.g., open/closed circuit).	.....		10,000	10,000	.....
Notes:					
1. Employers may select respirators assigned for use in higher workplace concentrations of a hazardous substance for use at lower concentrations of that substance, or when required respirator use is independent of concentration.					
2. The assigned protection factors in Table 1 are only effective when the employer implements a continuing, effective respirator program as required by this section, including training, fit testing, maintenance, and use requirements.					
3. This APF category includes filtering facepieces, and half masks with elastomeric facepieces.					
4. The employer must have evidence provided by the respirator manufacturer that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. This level of performance can best be demonstrated by performing a Workplace Protection Factor (WPF) or simulated WPF study or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be treated as loose-fitting facepiece respirators, and receive an APF of 25.					
5. These APFs do not apply to respirators used solely for escape. For escape respirators used in association with substances covered by substance-specific standards in Title 8, Division 1, Chapter 4, Subchapters 4, 7, and 18, employers must refer to the appropriate substance-specific standards. Escape respirators for other IDLH atmospheres are specified by subsection (d)(2)(B).					



2. Maximum Use Concentration (MUC)

a. DEB must select a respirator for employee use that maintains the employee's exposure to the hazardous substance, when measured outside the respirator, at or below the MUC.

b. DEBs must not apply MUCs to conditions that are immediately dangerous to life or health (IDLH); instead, they must use respirators listed for IDLH conditions in subsection (d)(2) of this section.

c. When the calculated MUC exceeds the IDLH level for a hazardous substance, or the performance limits of the cartridge or canister, then DEBs must set the maximum MUC at that lower limit.

(B) The respirator selected shall be appropriate for the chemical state and physical form of the contaminant.

(C) For protection against gases and vapors, DEB shall provide:

1. An atmosphere-supplying respirator, or
2. An air-purifying respirator, provided that:

a. The respirator is equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant; or

b. If there is no ESLI appropriate for conditions in DEB's workplace, DEB implements a change schedule for canisters and cartridges that is based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life. DEB shall describe in the respirator program the information and data relied upon and the basis for the canister and cartridge change schedule and the basis for reliance on the data.

(D) For protection against particulates, DEB shall provide:

1. An atmosphere-supplying respirator; or
2. An air-purifying respirator equipped with a filter certified by NIOSH under 30 CFR part 11 as a high efficiency particulate air (HEPA) filter, or an air-purifying respirator equipped with a filter certified for particulates by NIOSH under 42 CFR part 84; or
3. For contaminants consisting primarily of particles with mass median aerodynamic diameters (MMAD) of at least 2 micrometers, an air-purifying respirator equipped with any filter certified for particulates by NIOSH.



Altitude (ft.)	Oxygen deficient Atmospheres (% O ₂) for which the employer may rely on atmosphere-supplying respirators
Less than 3,001	16.0-19.5
3,001-4,000	16.4-19.5
4,001-5,000	17.1-19.5
5,001-6,000	17.8-19.5
6,001-7,000	18.5-19.5
7,001-8,000 ¹	19.3-19.5

¹Above 8,000 feet the exception does not apply. Oxygen-enriched breathing air must be supplied above 14,000 feet.

(e) Medical evaluation. Using a respirator may place a physiological burden on employees that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. Accordingly, this subsection specifies the minimum requirements for medical evaluation that DEBs must implement to determine the employee's ability to use a respirator.

(1) General. DEB shall provide a medical evaluation to determine the employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace. DEB may discontinue an employee's medical evaluations when the employee is no longer required to use a respirator.

(2) Medical evaluation procedures.

(A) DEB shall identify a physician or other licensed health care professional (PLHCP) to perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information as the medical questionnaire.

(B) The medical evaluation shall obtain the information requested by the questionnaire in Sections 1 and 2, Part A of Appendix C.

Exception to subsection (e)(2)(B): For the use of filtering facepiece respirators for protection against M. Tuberculosis only, DEB may rely upon a medical evaluation



completed prior to October 18, 2004, in meeting the requirement for initial medical evaluation, if that evaluation meets the following conditions:

1. The evaluation consisted of a questionnaire, medical examination, or both, evaluated or conducted by a PLHCP; and
2. DEB obtained a written statement from the evaluating PLHCP that the employee is medically able to use a respirator.

(3) Follow-up medical examination.

(A) DEB shall ensure that a follow-up medical examination is provided for an employee who gives a positive response to any question among questions 1 through 8 in Section 2, Part A of Appendix C or whose initial medical examination demonstrates the need for a follow-up medical examination.

(B) The follow-up medical examination shall include any medical tests, consultations, or diagnostic procedures that the PLHCP deems necessary to make a final determination.

(4) Administration of the medical questionnaire and examinations.

(A) The medical questionnaire and examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire shall be administered in a manner that ensures that the employee understands its content.

(B) DEB shall provide the employee with an opportunity to discuss the questionnaire and examination results with the PLHCP.

(5) Supplemental information for the PLHCP.

(A) The following information must be provided to the PLHCP before the PLHCP makes a recommendation concerning an employee's ability to use a respirator:

1. The type and weight of the respirator to be used by the employee;
2. The duration and frequency of respirator use (including use for rescue and escape);
3. The expected physical work effort;
4. Additional protective clothing and equipment to be worn; and
5. Temperature and humidity extremes that may be encountered.



(B) Any supplemental information provided previously to the PLHCP regarding an employee need not be provided for a subsequent medical evaluation if the information and the PLHCP remain the same.

(C) DEB shall provide the PLHCP with a copy of the written respiratory protection program and a copy of this section.

Note to Subsection (e)(5)(C): When DEB replaces a PLHCP, DEB must ensure that the new PLHCP obtains this information, either by providing the documents directly to the PLHCP or having the documents transferred from the former PLHCP to the new PLHCP. However, OSHA does not expect DEBs to have employees medically reevaluated solely because a new PLHCP has been selected.

(6) Medical determination. In determining the employee's ability to use a respirator, DEB shall:

(A) Obtain a written recommendation regarding the employee's ability to use the respirator from the PLHCP. The recommendation shall provide only the following information:

1. Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the employee is medically able to use the respirator;
2. The need, if any, for follow-up medical evaluations; and
3. A statement that the PLHCP has provided the employee with a copy of the PLHCP's written recommendation.

(B) If the respirator is a negative pressure respirator and the PLHCP finds a medical condition that may place the employee's health at increased risk if the respirator is used, DEB shall provide a PAPR if the PLHCP's medical evaluation finds that the employee can use such a respirator; if a subsequent medical evaluation finds that the employee is medically able to use a negative pressure respirator, then DEB is no longer required to provide a PAPR.

(7) Additional medical evaluations. At a minimum, DEB shall provide additional medical evaluations that comply with the requirements of this section if:

(A) An employee reports medical signs or symptoms that are related to ability to use a respirator;



(B) A PLHCP, supervisor, or the respirator program administrator informs DEB that an employee needs to be reevaluated;

(C) Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation; or

(D) A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee.

(f) Fit testing. This subsection requires that, before an employee may be required to use any respirator with a negative or positive pressure tight-fitting facepiece, the employee must be fit tested with the same make, model, style, and size of respirator that will be used. This subsection specifies the kinds of fit tests allowed, the procedures for conducting them, and how the results of the fit tests must be used.

(1) DEB shall ensure that employees using a tight-fitting facepiece respirator pass an appropriate qualitative fit test (QLFT) or quantitative fit test (QNFT) as stated in this subsection.

(2) DEB shall ensure that an employee using a tight-fitting facepiece respirator is fit tested prior to initial use of the respirator, whenever a different respirator facepiece (size, style, model or make) is used, and at least annually thereafter.

(3) DEB shall conduct an additional fit test whenever the employee reports, or DEB, PLHCP, supervisor, or program administrator makes visual observations of, changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

(4) If after passing a QLFT or QNFT, the employee subsequently notifies DEB, program administrator, supervisor, or PLHCP that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator facepiece and to be retested.

(5) The fit test shall be administered using an OSHA-accepted QLFT or QNFT protocol. The OSHA-accepted QLFT and QNFT protocols and procedures are contained in Appendix A.

(6) QLFT may only be used to fit test negative pressure air-purifying respirators that must achieve a fit factor of 100 or less.



(7) If the fit factor, as determined through an OSHA-accepted QNFT protocol, is equal to or greater than 100 for tight-fitting half facepieces, or equal to or greater than 500 for tight-fitting full facepieces, the QNFT has been passed with that respirator.

(8) Fit testing of tight-fitting atmosphere-supplying respirators and tight-fitting powered air-purifying respirators shall be accomplished by performing quantitative or qualitative fit testing in the negative pressure mode, regardless of the mode of operation (negative or positive pressure) that is used for respiratory protection.

(A) Qualitative fit testing of these respirators shall be accomplished by temporarily converting the respirator user's actual facepiece into a negative pressure respirator with appropriate filters, or by using an identical negative pressure air-purifying respirator facepiece with the same sealing surfaces as a surrogate for the atmosphere-supplying or powered air-purifying respirator facepiece.

(B) Quantitative fit testing of these respirators shall be accomplished by modifying the facepiece to allow sampling inside the facepiece in the breathing zone of the user, midway between the nose and mouth. This requirement shall be accomplished by installing a permanent sampling probe onto a surrogate facepiece, or by using a sampling adapter designed to temporarily provide a means of sampling air from inside the facepiece.

(C) Any modifications to the respirator facepiece for fit testing shall be completely removed, and the facepiece restored to NIOSH-approved configuration, before that facepiece can be used in the workplace.

(g) Use of respirators. This subsection requires DEBs to establish and implement procedures for the proper use of respirators. These requirements include prohibiting conditions that may result in facepiece seal leakage, preventing employees from removing respirators in hazardous environments, taking actions to ensure continued effective respirator operation throughout the work shift, and establishing procedures for the use of respirators in IDLH atmospheres or in interior structural firefighting situations.

(1) Facepiece seal protection.

(A) DEB shall not permit respirators with tight-fitting facepieces to be worn by employees who have:

1. Facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function; or
2. Any condition that interferes with the face-to-facepiece seal or valve function.



(B) If an employee wears corrective glasses or goggles or other personal protective equipment, DEB shall ensure that such equipment is worn in a manner that does not interfere with the seal of the facepiece to the face of the user.

(C) For all tight-fitting respirators, DEB shall ensure that employees perform a user seal check each time they put on the respirator using the procedures in Appendix B-1 or procedures recommended by the respirator manufacturer that DEB demonstrates are as effective as those in Appendix B-1.

(2) Continuing respirator effectiveness.

(A) Appropriate surveillance shall be maintained of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, DEB shall reevaluate the continued effectiveness of the respirator.

(B) DEB shall ensure that employees leave the respirator use area:

1. To wash their faces and respirator facepieces as necessary to prevent eye or skin irritation associated with respirator use; or
2. If they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece; or
3. To replace the respirator or the filter, cartridge, or canister elements.

(C) If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece, DEB must replace or repair the respirator before allowing the employee to return to the work area.

(3) Procedures for IDLH atmospheres. For all IDLH atmospheres, DEB shall ensure that:

(A) One employee or, when needed, more than one employee is located outside the IDLH atmosphere;

(B) Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere and the employee(s) located outside the IDLH atmosphere;

(C) The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue;

(D) DEB or designee is notified before the employee(s) located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue;



(E) DEB or designee authorized to do so by DEB, once notified, provides necessary assistance appropriate to the situation;

(F) Employee(s) located outside the IDLH atmospheres are equipped with:

1. Pressure demand or other positive pressure SCBAs, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SBA; and either
2. Appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry; or
3. Equivalent means for rescue where retrieval equipment is not required under subsection (g)(3)(F)2.

(4) Procedures for interior structural firefighting. In addition to the requirements set forth under subsection (g)(3), in interior structural fires, DEB shall ensure that:

(A) At least two employees enter the IDLH atmosphere and remain in visual or voice contact with one another at all times;

(B) At least two employees are located outside the IDLH atmosphere; and

(C) All employees engaged in interior structural firefighting use SCBAs.

Note 1 to subsection (g): One of the two individuals located outside the IDLH atmosphere may be assigned to an additional role, such as incident commander in charge of the emergency or safety officer, so long as this individual is able to perform assistance or rescue activities without jeopardizing the safety or health of any firefighter working at the incident.

Note 2 to subsection (g): Nothing in this section is meant to preclude firefighters from performing emergency rescue activities before an entire team has assembled.

(h) Maintenance and care of respirators. This subsection requires DEB to provide for the cleaning and disinfecting, storage, inspection, and repair of respirators used by employees.

(1) Cleaning and disinfecting. DEB shall provide each respirator user with a respirator that is clean, sanitary, and in good working order. DEB shall ensure that respirators are cleaned and disinfecting using the procedures in Appendix B-2, or procedures recommended by the respirator manufacturer, provided that such procedures are of



equivalent effectiveness. The respirators shall be cleaned and disinfected at the following intervals:

- (A) Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition;
- (B) Respirators issued to more than one employee shall be cleaned and disinfected before being worn by different individuals;
- (C) Respirators maintained for emergency use shall be cleaned and disinfected after each use; and
- (D) Respirators used in fit testing and training shall be cleaned and disinfected after each use.

(2) Storage. DEB shall ensure that respirators are stored as follows:

- (A) All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the facepiece and exhalation valve.
- (B) In addition to the requirements of subsection (h)(2)(A), emergency respirators shall be:

1. Kept accessible to the work area;
2. Stored in compartments or in covers that are clearly marked as containing emergency respirators; and
3. Stored in accordance with any applicable manufacturer instructions.

(3) Inspection.

(A) DEB shall ensure that respirators are inspected as follows:

1. All respirators used in routine situations shall be inspected before each use and during cleaning;
2. All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with the manufacturer's recommendations, and shall be checked for proper function before and after each use; and
3. Emergency escape-only respirators shall be inspected before being carried into the workplace for use.



(B) DEB shall ensure that respirator inspections include the following:

1. A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tube, and cartridges, canisters or filters; and
2. A check of elastomeric parts for pliability and signs of deterioration.

(C) In addition to the requirements of subsections (h)(3)(A) and (B), self-contained breathing apparatus shall be inspected monthly. Air and oxygen cylinders shall be maintained in a fully charged state and shall be recharged when the pressure falls to 90% of the manufacturer's recommended pressure level. DEB shall determine that the regulator and warning devices function properly.

(D) For respirators maintained for emergency use, DEB shall:

1. Certify the respirator by documenting the date the inspection was performed, the name (or signature) of the person who made the inspection, the findings, required remedial action, and a serial number or other means of identifying the inspected respirator; and
2. Provide this information on a tag or label that is attached to the storage compartment for the respirator, is kept with the respirator, or is included in inspection reports stored as paper or electronic files. This information shall be maintained until replaced following a subsequent certification.

(4) Repairs. DEB shall ensure that respirators that fail an inspection or are otherwise found to be defective are removed from service, and are discarded or repaired or adjusted in accordance with the following procedures:

(A) Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator;

(B) Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed; and

(C) Reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

(i) Breathing air quality and use. This subsection requires DEB to provide employees using atmosphere-supplying respirators (supplied-air and SCBA) with breathing gases of high purity.



(1) DEB shall ensure that compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration accords with the following specifications:

(A) Compressed and liquid oxygen shall meet the United States Pharmacopoeia requirements for medical or breathing oxygen; and

(B) Compressed breathing air shall meet at least the requirements for Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989, to include:

1. Oxygen content (v/v) of 19.5-23.5%;
2. Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
3. Carbon monoxide (CO) content of 10 ppm or less;
4. Carbon dioxide content of 1,000 ppm or less; and
5. Lack of noticeable odor.

(2) DEB shall ensure that compressed oxygen is not used in atmosphere-supplying respirators that have previously used compressed air.

(3) DEB shall ensure that oxygen concentrations greater than 23.5% are used only in equipment designed for oxygen service or distribution.

(4) DEB shall ensure that cylinders used to supply breathing air to respirators meet the following requirements:

(A) Cylinders are tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49 CFR part 180);

(B) Cylinders of purchased breathing air have a certificate of analysis from the supplier that the breathing air meets the requirements for Grade D breathing air; and

(C) The moisture content in the cylinder does not exceed a dew point of -50 deg. F (-45.6 deg. C) at 1 atmosphere pressure.

(D) DEB shall use only the respirator manufacturer's NIOSH approved breathing-gas containers, marked and maintained in accordance with the Quality Assurance provisions of the NIOSH approval for the SCBA as issued in accordance with the NIOSH respirator-certification standard at 42 CFR part 84.



(5) DEB shall ensure that compressors used to supply breathing air to respirators are constructed and situated so as to:

(A) Prevent entry of contaminated air into the air-supply system;

(B) Minimize moisture content so that the dew point at 1 atmosphere pressure is 10 degrees F (-5.56 deg. C) below the ambient temperature;

(C) Have suitable in-line air-purifying sorbent beds and filters to further ensure breathing air quality. Sorbent beds and filters shall be maintained and replaced or refurbished periodically following the manufacturer's instructions.

(D) Have a tag containing the most recent change date and the signature of the person authorized by DEB to perform the change. The tag shall be maintained at the compressor.

(6) For compressors that are not oil-lubricated, DEB shall ensure that carbon monoxide levels in the breathing air do not exceed 10 ppm.

(7) For oil lubricated compressors, DEB shall use a high-temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If only high-temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm.

(8) DEB shall ensure that breathing air couplings are incompatible with outlets for nonrespirable worksite air or other gas systems. No asphyxiating substance shall be introduced into breathing air lines.

(9) DEB shall use breathing gas containers marked in accordance with the NIOSH respirator certification standard, 42 CFR part 84.

(j) Identification of filters, cartridges, and canisters. DEB shall ensure that all filters, cartridges and canisters used in the workplace are labeled and color coded with the NIOSH approval label and that the label is not removed and remains legible.

(k) Training and information. This subsection requires DEB to provide effective training to employees who are required to use respirators. The training must be comprehensive, understandable, and recur annually, and more often if necessary. This subsection also requires DEB to provide the basic information on respirators in Appendix D to employees who wear respirators when not required by this section or by DEB to do so.

(1) DEB shall ensure that each employee can demonstrate knowledge of at least the following:



(A) Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;

(B) What the limitations and capabilities of the respirator are;

(C) How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;

(D) How to inspect, put on and remove, use, and check the seals of the respirator;

(E) What the procedures are for maintenance and storage of the respirator;

(F) How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and

(G) The general requirements of this section.

(2) The training shall be conducted in a manner that is understandable to the employee.

(3) DEB shall provide the training prior to requiring the employee to use a respirator in the workplace.

(4) An DEB who is able to demonstrate that a new employee has received training within the last 12 months that addresses the elements specified in subsection (k)(1)(A) through (G) is not required to repeat such training provided that, as required by subsection (k)(1), the employee can demonstrate knowledge of those element(s). Previous training not repeated initially by DEB must be provided no later than 12 months from the date of the previous training.

(5) Retraining shall be administered annually, and when the following situations occur:

(A) Changes in the workplace or the type of respirator render previous training obsolete;

(B) Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or

(C) Any other situation arises in which retraining appears necessary to ensure safe respirator use.

(6) The basic advisory information on respirators, as presented in Appendix D, shall be provided by DEB in any written or oral format, to employees who wear respirators when such use is not required by this section or by DEB.



(l) Program evaluation. This section requires DEB to conduct evaluations of the workplace to ensure that the written respiratory protection program is being properly implemented, and to consult employees to ensure that they are using the respirators properly.

(1) DEB shall conduct evaluations of the workplace as necessary to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective.

(2) DEB shall regularly consult employees required to use respirators to assess the employees' views on program effectiveness and to identify any problems. Any problems that are identified during this assessment shall be corrected. Factors to be assessed include, but are not limited to:

(A) Respirator fit (including the ability to use the respirator without interfering with effective workplace performance);

(B) Appropriate respirator selection for the hazards to which the employee is exposed;

(C) Proper respirator use under the workplace conditions the employee encounters; and

(D) Proper respirator maintenance.

(m) Recordkeeping. This section requires DEB to establish and retain written information regarding medical evaluations, fit testing, and the respirator program. This information will facilitate employee involvement in the respirator program, assist DEB in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA.

(1) Medical evaluation. Records of medical evaluations required by this section must be retained and made available in accordance with section 3204.

(2) Fit testing.

(A) DEB shall establish a record of the qualitative and quantitative fit tests administered to an employee including:

1. The name or identification of the employee tested;

2. Type of fit test performed;

3. Specific make, model, style, and size of respirator tested;

4. Date of test; and



5. The pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.

(B) Fit test records shall be retained for respirator users until the next fit test is administered.

(3) A written copy of the current respirator program shall be retained by DEB.

(4) Written materials required to be retained under this subsection shall be made available upon request to affected employees and to the Chief or designee for examination and copying



DEB Construction, LLC

HEAT ILLNESS PREVENTION

INTRODUCTION

Heat illness can be one or more medical conditions including heat rash, heat cramps, fainting, heat exhaustion, and heat stroke. Heat illness may be mild initially but can become severe or fatal if the body temperature continues to rise. Supervisors, foremen, and employees should look continuously for signs and symptoms of heat illness in themselves and fellow workers.

To help employers develop, implement, and monitor their heat illness prevention procedures, Cal/OSHA has provided a number of materials on heat illness prevention including:

- Educational resources including Employer's Training Kit (www.dir.ca.gov/DOSH/HeatIllnessInfo.html)
- eTool (<http://www.dir.ca.gov/dosh/etools/08-006/index.htm>)
- Employer's Sample Procedures (www.dir.ca.gov/dosh/dosh_publications/HIP-sample-procedures.pdf)
- "Protect Yourself from Heat Illness" publication (www.dir.ca.gov/dosh/dosh_publications/HeatIllnessEmployeeEngSpan.pdf)

Definitions

- "Acclimatization" means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.
- "Heat Illness" means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke.
- "Environmental risk factors for heat illness" means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.
- "Landscaping" means providing landscape care and maintenance services and/or installing trees, shrubs, plants, lawns, or gardens, or providing these services in conjunction with the design of landscape plans and/or the construction (i.e., installation) of walkways, retaining walls, decks, fences, ponds, and similar structures, except for employment by an employer who operates a fixed establishment where the work is to be performed and where drinking water is plumbed.
- "Oil and gas extraction" means operating and/or developing oil and gas field properties, exploring for crude petroleum or natural gas, mining or extracting of oil or gas or recovering liquid hydrocarbons from oil or gas field gases.
- "Personal risk factors for heat illness" means factors such as an individual's age, degree of



DEB Construction, LLC

acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

- “Shade” means blockage of direct sunlight. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning. Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions and that does not deter or discourage access or use.
- “Temperature” means the dry bulb temperature in degrees Fahrenheit obtainable by using a thermometer to measure the outdoor temperature in an area where there is no shade. While the temperature measurement must be taken in an area with full sunlight, the bulb or sensor of the thermometer should be shielded while taking the measurement, e.g., with the hand or some other object, from direct contact by sunlight.

Signs and symptoms of heat illness may include:

Heat Rash (Prickly Heat)—General Symptoms:

- Can cover large parts of the body
- Looks like a red cluster of pimples or small blisters
- Often on the neck, chest, groin, under the breasts, or in elbow creases
- Feels uncomfortable, can disrupt sleep and work performance
- Complicated by infections

Heat Cramps—General Symptom:

- Painful muscle spasms in the stomach, arms, legs, and other body parts (may occur after work or at night)

Fainting—General Symptoms:

- Sudden dizziness, light-headedness
- Unconsciousness

Notes:

- » Provide first aid immediately
- » Never give liquids to an unconscious person

Heat Exhaustion—General Symptoms:

- Heavy sweating, painful muscle cramps, extreme weakness and/or fatigue
- Nausea, vomiting, dizziness, headache
- Body temperature normal or slightly high
- Fainting
- Pulse fast and weak
- Breathing fast and shallow
- Clammy, pale, cool, and/or moist skin

Note: Heat exhaustion can occur because of high core body temperature even when an individual is well hydrated.



DEB Construction, LLC

Heat Stroke—General Symptoms:

- No sweating; the body cannot release heat or cool down
- Mental confusion, delirium, convulsions, dizziness
- Hot and dry skin (e.g., red, bluish, or mottled)
- Muscles may twitch uncontrollably
- Pulse can be rapid and weak
- Throbbing headache, shallow breathing, seizures/fits
- Unconsciousness and coma
- Body temperature may range from 102–104°F or higher within 10–15 minutes

Note: A heat stroke victim may die within 30 to 60 minutes unless treated properly, and survivors may have some degree of permanent neurological impairment.

Requirements and guidance for heat illness prevention in the workplace:

A. All employers who have employees working in outdoor places of employment must have a written heat illness prevention plan and implement effective procedures for the prevention of heat illness.

B. The plan must be employer-specific and be available on site or immediately available on request of the employee or the Division.

C. Heat illness prevention plan, at a minimum, must include: 3395(i)

1. Procedures for providing sufficient water
2. Procedures for providing access to shade
3. High-heat procedures
4. Emergency response procedures
5. Acclimatization methods and procedures

D. The plan shall be in writing in both English and the language understood by the majority of the employees.

E. Procedures for providing sufficient water. 3395(c)

1. Sufficient amounts of fresh, pure, and suitably cool potable water shall be available at all times.
2. Provide at least one quart per employee per hour for the entire shift.
3. If individual water containers are provided, the containers must be clean, and a source of potable water must be readily available.
4. Water from unpermitted/unlicensed or non-tested water sources must not be used.

Notes:

Permits for public water systems are granted by the California State Water Resources Control Board

(www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Permits.shtml)

Licensing of bottled/vended water source is regulated by the California Department of Public Health

(www.cdph.ca.gov/pubsforms/Pages/fdbBVWfaq.aspx)

5. If hoses or connections are used, they must meet the requirements for potable drinking water system as per California Health and Safety Code section 114205–114242.

6. During hot weather, the water must be cooler than the ambient temperature.



DEB Construction, LLC

Note: Do not have water so cool as to cause discomfort.

7. Place water as close as practicable to where employees are working. For example, on a multi-story construction site, place water in a safely accessible location on every floor where employees are working.
8. Remind workers to drink water often and not to wait until they are thirsty to drink.
9. Provide water at no cost to the workers.

F. Procedures for providing access to shade. 3395(d) Provide shade to employees during breaks and preventative cool down rest periods by taking following measures.

1. When outdoor temperature is 80° F or less:

- a. Have shade available and provide shade or timely access to shade upon request.
- b. It helps to have the shade erected if the weather is hot enough that the shade can help employees to cool off.

2. When outdoor temperature exceeds 80° F:

- a. Have one or more areas with shade at all times while employees are present. If no other shade is readily available, erect shade structures immediately.
- b. It is a good idea to set up the shade in advance if at 5:00 p.m. the night before, the temperature is predicted to exceed 80° F.

3. Perform frequent checks of the temperature at the worksite because you need to set up the shade immediately if the temperature exceeds 80° F. It is a good idea to check the temperature hourly.

4. Place the shade structure as close as practicable to the areas where employees are working.

5. Shade must be either open to the air or provided with ventilation or cooling, and must be easy for employees to reach.

6. Permit employees to access shade at all times.

7. Provide enough shade to accommodate all employees:

- a. who are on recovery and rest period breaks, and
- b. who choose to remain in areas designated for recovery and rest periods during their meal periods.

8. Erect additional structures on an as-needed basis.

9. Encourage employees to take a cool-down rest in the shade when they feel the need to do so to protect themselves from overheating.

10. Have water available in the rest area so that employees are encouraged to drink more water.

11. When it is not possible to erect a shade structure, you may provide alternative cooling measures that offer equivalent protection. **Exceptions to 3395(d)(1) and (d)(2)**

12. Monitor the employee on cool-down rest and ask if he or she is experiencing any symptoms of heat illness, including simple fatigue.



DEB Construction, LLC

13. If an employee exhibits or complains of any sign or symptom of heat illness, initiate first-aid procedures without delay.

14. Encourage the employee on cool-down rest to remain in the shade for 5 or more minutes as needed.

G. High-heat procedures: 3395(e)

1. Implement high-heat procedures when the temperature equals or exceeds 95°F.
2. Train all employees to recognize the signs and symptoms of heat illness and allow them to call for emergency medical services when necessary.
3. Train all employees to stay in contact, observe each other, and immediately report any signs/symptoms of heat illness.
4. Observe and monitor employees for alertness and signs or symptoms of heat illness by implementing one or more of the following:
 - a. Supervisor or designee observation of 20 or fewer employees
 - b. Mandatory buddy system
 - c. Regular communication with sole employee using radio or cellular phone
 - d. Other effective means of observation
5. Contact employees regularly.
6. Designate one or more employees on each worksite as authorized to call for emergency medical services.
7. Remind employees throughout the work shift to drink plenty of water.
8. Provide close supervision to new employees as they may have less or no acclimatization.
9. Conduct pre-shift meetings to review the high-heat procedures and to remind employees to drink plenty of water and take a cool-down rest when necessary.

H. Emergency response procedures: 3395(f)

Employers are required to implement effective emergency response procedures in the workplace. Requirements and guidance include the following:

1. Maintain effective communication by voice, observation, or electronic means.
2. Take immediate action if any signs or symptoms of heat illness in any employee is observed or reported.
3. Implement emergency response procedures if the signs or symptoms indicate severe heat illness.
4. Do not leave the employee exhibiting signs or symptoms of heat illness alone or send them home without offering onsite first aid and/or providing emergency medical services.
5. Contact emergency medical services and, if necessary, transport employees to a place where they can



DEB Construction, LLC

be reached by an emergency medical provider.

6. In the event of an emergency, make sure that clear and precise directions to the worksite are provided to emergency responders.

7. If you have mobile crews, provide the emergency medical provider a map of the crew's location or detailed direction.

I. Acclimatization methods and procedures 3395(g)

1. Make sure that all employees are observed by a supervisor or designee during a heat wave.

Note: A "heat wave" means any day in which the predicted high temperature for the day will be at least 80°F and at least 10°F higher than the average daily high temperature in the preceding 5 days.

2. Have a supervisor or designee closely observe any employee who has been newly assigned to a high heat area for the first 14 days of the employment.

3. Be extra-vigilant in employee monitoring during heat waves and when new employees are on the job.

J. Training of employees and supervisors 3395(h).

1. Training of employees and supervisors in your heat illness prevention plans and procedures is extremely important for the prevention of heat illness at the workplace.

2. Make sure that employees and supervisors are trained before any anticipated exposure to the risk of heat illness.

3. Provide training when an employee is hired.

4. Provide refresher training as needed.

Note: Training that is given close in time to the hot season is more effective than training given during colder seasons without follow-up refresher training.

5. Cover general and site/work-specific topics in the training including:

- All procedures in your heat illness prevention plan, including procedures for providing water, shade and cool-down rests, high heat, emergency response, and acclimatization
- The concept, importance, and methods of acclimatization
- The different types of heat illness and the common signs and symptoms of heat illness
- Appropriate first aid and/or emergency response for the different types of heat illness, and how to access
- Provide the training in a language the employees understand
- Ensure that the work procedures are consistent with the information provided in the training
- Maintain records of the training

K. Have a suitable number of trained persons to render first aid. Typical first aid methods for heat exhaustion and heat stroke:

1. Give first aid for heat exhaustion, lay the person down flat in a cool environment, loosen their



DEB Construction, LLC

clothing, and give them plenty of water to drink.

2. Give first aid for heat stroke, immediately start aggressive cooling of the person and get them to a hospital right away. Cooling can include placing cool wet towels on the trunk, arms, and legs while refreshing the cooling towels every few minutes.

L. Ways to prevent heat illness also include:

1. Monitoring the weather forecast ahead of time and planning accordingly.
2. Timing the heaviest workload for the coolest part of the workday.
3. Starting work early in the morning.
4. Providing training on heat stress including prevention, recognition, and first aid as a part of the employer's IIPP. 3203, 3400, 3439

For more information on Heat Illness Prevention, see Cal/OSHA's Heat Illness Prevention eTool at www.dir.ca.gov/dosh/etools/08-006/index.htm.



DEB Construction, LLC

Hearing Protection

PURPOSE

This Hearing Conservation Program (HCP) is designed to ensure that the campus community does not suffer noise related health effects from excessive noise exposure. Some operations may expose faculty, staff, and/or students to high noise levels. This Program is a part of the Institute's overall commitment toward a safe and healthy workplace.

SCOPE

This Hearing Conservation Program applies whenever employee noise exposures equal or exceed an 8-hour time-weighted average (TWA) sound level of 85 decibels measured on the A-weighted scale (dBA).



Responsibilities

Supervisor

- Notifying Safety Officer & on-site Superintendent of noise concerns / complaints or potential noise hazards.
- Ensuring that employees are provided with hearing protectors when required by this Program.
- Ensuring that employees properly use and care for their hearing protectors.
- Ensuring that noise hazards such as noisy equipment and areas are properly labeled and identified as required by this Program.
- Notifying on-site Superintendent of process, materials or equipment changes that may alter noise exposures.
- Ensuring that employees who may be exposed to noise at or above 85 dBA for an 8-hour TWA are provided with a baseline audiometric test prior to their initial work assignment and then annually thereafter. High noise exposure must be avoided for fourteen (14) hours prior to an audiometric test.
- Enforcing the use of hearing protectors in the designated areas/assignments.
- Ensuring new employee HCP orientation/training and annual refresher HCP training is provided to all employees required to be in the Program.

Safety Officer

- Administering the Hearing Conservation Program.
- Performing workplace and employee noise evaluations:
- Conducting noise assessments to determine if administrative and engineering controls are feasible to reduce noise levels.
- Identifying all areas or processes that may require noise abatement and/or postings.
- Evaluating and periodically reevaluating employees' exposure, by job classification, to determine which job titles need to be included in the HCP.
-
- Maintaining records of employee exposure measurements.
- Maintaining audiometric test records.
- Ensuring annual training on HCP.

Employees

- Wearing hearing protection devices and following any noise reduction procedures as required.
- Storing and maintaining hearing protection devices in a clean and sanitary manner.
- Reporting noise hazards and hearing protector problems to their Supervisor.
- Attending required training sessions on the HCP.



Health Provider

- Providing baseline and annual audiometric testing.
- Performing audiogram evaluations.
- Communicate any standard threshold shifts to Human Resources.
- Maintaining audiometric test records.

DEB Construction Disability and Leave

- Shall record cases of occupational hearing loss if an employee's current audiogram reveals a work-related Standard Threshold Shift (STS) of 25 decibels or more (averaged at 2000, 3000, and 4000 Hz) above audiometric zero in the same ear on the Cal/OSHA Form 300 (or equivalent). [Title 8 CCR 14300.10].

Program Components

Noise Surveys/Monitoring

The Safety Officer/on-site Superintendent surveys work areas where noise levels may equal or exceed 85 dBA. Noise monitoring is used to confirm noise levels and to identify workers to participate in the Hearing Conservation Program. Noise monitoring also allows for the proper selection of hearing protection. In circumstances such as high worker mobility, significant variations in sound level, or a significant component of impulse noise make area monitoring generally inappropriate, DEB Construction will use representative personnel sampling to determine employees' noise exposure. All noise monitoring at DEB Construction is performed according to Cal-OSHA guidelines. The on-site Superintendent can initiate sound level surveys and can contact the Safety Officer to request a sound level survey:

- If they suspect exposure to excessive noise on the job;
- If previously monitored areas may have changed;
- If the assigned hearing protectors are suspected of providing inadequate protection.

EH&S performs additional sound level surveys whenever a change in process, equipment, or controls increases noise exposures such that:

- Additional employees may be exposed to at or above 85 dBA; or
- The hearing protection being used may no longer provide adequate protection for the noise exposure.

Affected employees may observe any occupational noise monitoring which is conducted at DEB Construction.

Results

The on-site Superintendent will provide the results of these surveys to the area Supervisor. Supervisors will notify each employee exposed at or above the action level of the results of the monitoring. Records of monitoring are kept on file with human resources.



Employees exposed to noise at an 8-hour timeweighted average at or above 85 dBA will be placed in the Hearing Conservation Program.

Audiometric Testing

DEB Construction provides medical coverage for audiograms to employees in the Hearing Conservation Program. A baseline audiogram can be used to determine if a person has suffered a significant hearing loss, also called a Standard Threshold Shift (STS). Audiometric tests are performed at an offsite facility. The employee's department will pay for the cost of initial tests. Any additional tests or examinations to determine the cause of any hearing loss will be paid through Workers' Compensation.

Baseline

New employees will be offered a baseline test within six months of employment in an environment requiring hearing protection. It is necessary that employees are not exposed to noise levels at or above 80 dBA for at least 14 hours prior to the test. Hearing protectors can be used to attenuate noise levels below 80 dBA.

Annual

All workers in the Program are offered annual audiograms. Individuals exposed to noise equal to or greater than 85 dBA, 8-hour time-weighted average are required to receive an annual exam. These tests will be made available to employees during their normal work shift. Each employee's audiogram will be compared to that employee's baseline to determine if the audiogram is valid and if a standard threshold shift has occurred. Audiograms detecting a threshold shift will be repeated within 30 days.

Results

If the final test results confirm that an employee has suffered a standard threshold shift, the employee shall be informed of this fact, in writing, within twenty-one (21) days of the determination. A physician will determine whether a standard threshold shift is work related or may have been aggravated by occupational noise exposure. When a standard threshold shift occurs, the following steps will be taken:

- Reevaluation is accomplished to determine whether a standard threshold shift has occurred.
- If an employee is not using hearing protection, he/she will be fitted with hearing protectors; trained in their use and care, and required to use them; or
- If the employee is already using hearing protection, he/she will be refitted and retrained in their proper use, and if necessary, be provided with hearing protectors offering greater protection.

Hearing Protection



Hearing protection is required for all employees exposed to an 8-hour time-weighted average of 85 decibels or greater. Where hearing protection is to be used, it must attenuate noise exposures to less than an 8-hour time-weighted average of 85 decibels.

DEB Construction has a variety of hearing protection types available to employees. The on-site Superintendent determines appropriate hearing protectors based on measured noise levels and will ensure proper initial fitting. Supervisors will supervise the correct use of all hearing protectors. Hearing protection is to be replaced as necessary.

If there is any change in a process or operation, noise levels and hearing protection will be reevaluated by Human Resources as necessary.

Employee Education and Training

Annual training is provided to employees who participate in the Hearing Conservation Program.

The training covers the following subjects:

- The effects of noise on hearing loss;
- The responsibilities of the Institute and workers in preventing noise-induced hearing loss;
- The purpose of hearing protection; 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;
- The findings of any work area monitoring.

Record Keeping

All records relating to this Program including the results of all surveys, audiograms, and training will be retained for the following periods:

- All area and personnel noise monitoring records will be retained by on-site Superintendent/Human Resources.
- Audiometric test records will be retained by Human Resources for the duration of the affected employee's employment plus thirty (30) years after termination.
- Human Resources maintains hearing conservation training records.

All records will be provided upon request to employees, former employees, designated representatives, and to any authorized Cal-OSHA representative.



Fire Protection

Scope

The requirements of this Section apply to the placement, use, maintenance, and testing of portable fire extinguishers provided for the use of employees. Section (d) of this section does not apply to extinguishers provided for employee use on the outside of workplace buildings or structures. Where extinguishers are provided but are not intended for employee use and the employer has an emergency action plan and a fire prevention plan which meet the requirements of Sections 3220 and 3221 then only the requirements of Sections (e) and (f) of this Section apply.

Exemptions

(1) Where the employer has established and implemented a written fire safety policy which requires the immediate and total evacuation of employees from the workplace upon the sounding of a fire alarm signal and which includes an emergency action plan and a fire prevention plan which meet the requirements of Sections 3220 and 3221 and when extinguishers are not available in the workplace, the employer is exempt from all requirements of this section unless a specific Section in Title 8 requires that a portable fire extinguisher be provided.

(2) Where the employer has an emergency action plan meeting the requirements of Section 3220 which designates certain employees to be the only employees authorized to use the available portable fire extinguishers, and which requires all other employees in the fire area to immediately evacuate the affected work area upon the sounding of the fire alarm, the employer is exempt from the distribution requirements in Section (d) of this Section.

General Requirements

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

(2) Only approved portable fire extinguishers shall be used to meet the requirements of this section.

(3) The employer shall not provide or make available in the workplace portable fire extinguishers using carbon tetrachloride or chlorobromomethane extinguishing agents.

(4) The employer shall assure that portable fire extinguishers are maintained in a fully charged and operable condition and kept in their designated places at all times except during use.

(5) The employer shall permanently remove from service by January 1, 1982, all soldered or riveted shell self-generating soda acid or self-generating foam or gas cartridge water type portable fire extinguishers which are operated by inverting the extinguisher to rupture the cartridge or to initiate an uncontrollable pressure generating chemical reaction to expel the agent.



Selection and Distribution

- (1) Where portable fire extinguishers are provided for employee use, they shall be selected and distributed based on the classes of anticipated workplace fires and on the size and degree of hazard which would affect their use.
- (2) The employer shall distribute portable fire extinguishers for use by employees on Class A fires so that the travel distance for employees to any extinguisher is 75 feet (22.9m) or less.
- (3) The employer may use uniformly spaced standpipe systems or hose stations connected to a sprinkler system installed for emergency use by employees instead of Class A portable fire extinguishers, provided that such systems meet the respective requirements of Articles 158 or 159, that they provide total coverage of the area to be protected, and that employees are trained at least annually in their use.
- (4) The employer shall distribute portable fire extinguishers for use by employees on Class B fires so that the travel distance from the Class B hazard area to any extinguisher is 50 feet (15.2m) or less.
- (5) The employer shall distribute portable fire extinguishers used for Class C hazards on the basis of the appropriate pattern for the existing Class A or Class B hazards.
- (6) The employer shall distribute portable fire extinguishers or other containers of Class D extinguishing agent for use by employees so that the travel distance from the combustible metal working area to any extinguishing agent is 75 feet (22.9m) or less. Portable fire extinguishers for Class D hazards are required in those combustible metal working areas where combustible metal powders, flakes, shavings, or similarly sized products are generated a least once every two weeks.

Inspection, Maintenance and Testing

- (1) The employer shall be responsible for the inspection, maintenance and testing of all portable fire extinguishers in the workplace.
- (2) Portable extinguishers or hose used in lieu thereof under Subsection (d)(3) of this Section shall be visually inspected monthly.
- (3) Portable fire extinguishers shall be subjected to an annual maintenance check. Stored pressure extinguishers do not require an internal examination. The employer shall record the annual maintenance date and retain this record for one year after the last entry or the life of the shell, whichever is less. The record shall be available to the Chief upon request.
- (4) Stored pressure dry chemical extinguishers that require a 12-year hydrostatic test shall be emptied and subjected to applicable maintenance procedures every 6 years. Dry chemical extinguishers having non-refillable disposable containers are exempt from this requirement. When recharging or hydrostatic testing is performed, the 6-year requirement begins from that date.
- (5) Alternate equivalent protection shall be provided when portable fire extinguishers are removed from service for maintenance and recharging.



Hydrostatic Testing

(1) The employer shall assure that hydrostatic testing is performed by trained persons with suitable testing equipment and facilities.

(2) The employer shall assure that portable extinguishers are hydrostatically tested at the intervals listed in Table L-1 of this Section, except under any of the following conditions:

(A) when the unit has been repaired by soldering, welding, brazing, or use of patching compounds;

(B) when the cylinder or shell threads are damaged;

(C) when there is corrosion that has caused pitting, including corrosion under removable name plate assemblies;

(D) when the extinguisher has been burned in a fire; or

(E) when a calcium chloride extinguishing agent has been used in a stainless steel shell.

Type of Extinguishers	Test Interval (years)
Soda acid (soldered brass shells) (until 1/1/82)	[FN1]
Soda acid (stainless steel shell)	5
Cartridge operated water and/or antifreeze	5
Stored pressure water and/or antifreeze	5
Wetting agent	5
Foam (soldered brass shells) (until 1/1/82)	[FN1]
Foam (stainless steel shell)	5
Aqueous Film Forming Foam (AFFF)	5
Loaded stream	5
Dry chemical with stainless steel	5
Carbon dioxide	5
Dry chemical, stored pressure, with mild steel, brazed brass or aluminum shells	12
Dry chemical, cartridge or cylinder operated, with mild steel shells	12
Halon 1211	12
Halon 1301	12
Dry powder, cartridge or cylinder operated with mild steel shells	12



- (3) In addition to an external visual examination, the employer shall assure that an internal examination of cylinders and shells to be tested is made prior to the hydrostatic tests.
- (4) The employer shall assure that portable fire extinguishers are hydrostatically tested whenever they show new evidence of corrosion or mechanical injury, except under the conditions listed in subsection (f)(2)(A)-(E) of this Section.
- (5) The employer shall assure that hydrostatic tests are performed on extinguisher hose assemblies which are equipped with a shut-off nozzle at the discharge end of the hose. The test interval shall be the same as specified for the extinguisher on which the hose is installed.
- (6) The employer shall assure that carbon dioxide hose assemblies with a shut-off nozzle are hydrostatically tested at 1,250 psi (8,620 kPa).
- (7) The employer shall assure that dry chemical and dry powder hose assemblies with a shut-off nozzle are hydrostatically tested at 300 psi (2,070 kPa).
- (8) Hose assemblies passing a hydrostatic test do not require any type of recording or stamping.
- (9) The employer shall assure that hose assemblies for carbon dioxide extinguishers that require a hydrostatic test are tested within a protective cage device.
- (10) The employer shall assure that carbon dioxide extinguishers and nitrogen or carbon dioxide cylinders used with wheeled extinguishers are tested every 5 years at 5/3 of the service pressure as stamped into the cylinder. Nitrogen cylinders which comply with 49 CFR 173.34(e)(15) may be hydrostatically tested every 10 years.
- (11) The employer shall assure that all stored pressure and Halon 1211 types of extinguishers are hydrostatically tested at the factory test pressure not to exceed two times the service pressure.
- (12) The employer shall assure that acceptable self-generating type soda acid and foam extinguishers are tested at 350 psi (2,410 kPa).
- (13) Air or gas pressure may not be used for hydrostatic testing.
- (14) Extinguishers shells, cylinders, or cartridges which fail a hydrostatic pressure test, or which are not fit for testing shall be removed from service and from the workplace.
- (15) The equipment for testing compressed gas type cylinders shall be of the water jacket type. The equipment shall be provided with an expansion indicator which operates with an accuracy within one percent of the total expansion or 0.1cc of liquid.
- (A) The equipment for testing non-compressed gas type cylinders shall consist of the following:
1. A hydrostatic test pump, hand or power operated, capable of producing not less than 150 percent of the test pressure, which shall include appropriate check valves and fittings;
 2. A flexible connection for attachment to fittings to test through the extinguisher nozzle, test bonnet, or hose outlet, as is applicable; and
 3. A protective cage or barrier for personal protection of the tester, designed to provide visual observation of the extinguisher under test.



(16) The employer shall maintain and provide upon request to the Chief of Division evidence that the required hydrostatic testing of fire extinguishers has been performed at the time intervals shown in Table L-1. Such evidence shall be in the form of a certification record which includes the date of the test, the signature of the person who performed the test and the serial number, or the other identifier, of the fire extinguisher that was tested. Such records shall be kept until the extinguisher is hydrostatically retested at the time interval specified in Table L-1 or until the extinguisher is taken out of service.

Training & Education

(1) Where the employer has provided portable fire extinguishers for employee use in the workplace, the employer shall also provide an educational program to familiarize employees with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting.

(2) The employer shall provide the education required in subsection (g)(1) of this Section upon initial employment and at least annually thereafter.

(3) The employer shall provide employees who have been designated to use fire fighting equipment as part of an emergency action plan with training in the use of the appropriate equipment.

(4) The employer shall provide the training required in subsection (g)(3) of this Section upon initial assignment to the designated group of employees and at least annually thereafter.

First Aid

Scope

The employer shall insure the availability of medical personnel for advice and consultation on matters of occupational health. Provisions shall be made prior to commencement of the project for prompt medical attention in case of serious injury.

Procedures

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

First aid kits are provided to each employee on all job sites and contain at least the minimum supplies as determined by an licensed physician. Emergency written plans are posted on site with all emergency numbers.

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

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

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



In areas where 911 emergency dispatch services are available and an employer uses a communication system for contacting necessary emergency-medical service, the employer must:

Ensure that the communication system is effective in contacting the emergency-medical service; and

When using a communication system in an area that does not automatically supply the caller's latitude and longitude information to the 911 emergency dispatcher, the employer must post in a conspicuous location at the worksite either:

The latitude and longitude of the worksite; or

Other location-identification information that communicates effectively to employees the location of the worksite.

The requirement specified in paragraph (f)(2)(ii)(A) of this section does not apply to worksites with readily available telephone land lines that have 911 emergency service that automatically identifies the location of the caller.

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

Pandemic Preparedness

DEB adopts this plan to prepare for and respond to a threat of influenza or other pandemic that causes serious widespread illness. The company appoints the Human Resources Manager as the point person for the pandemic response plan.

The purpose of this plan is to address the following issues related to pandemics:

- Creating a culture of infection control in the workplace that is reinforced during the annual influenza season, to include, if possible, options for working offsite while ill, systems to reduce infection transmission, and worker education.
- Establishing contingency plans to maintain delivery of services during times of significant and sustained worker absenteeism.
- Where possible, establishing mechanisms to allow workers to provide services from home if public health officials advise against non-essential travel outside the home.
- Establishing partnerships with other members of the financial community to provide mutual support and maintenance of essential services during a pandemic.

The company also appoints a team of management level and other appropriate staff to assist the Human Resources Department known as the Pandemic Response Team. The members of this team will be decided on a case by case basis and the needs of the company.

It is the duty of the Human Resources Manager to:

- Monitor issues and information related to pandemics to keep our plan up to date.
- Recommend any changes to the plan as circumstances warrant.



- Conduct employee training.
- Communicate with public health agencies, emergency responders and others regarding our plan, and understand their capabilities should an outbreak occur.
- Attend external training/seminars about pandemic influenza outbreaks in order to remain current about the pandemic threat in our community.
- Implement this plan should it become necessary.

Pandemic Response Team members will have the following responsibilities:

- Identify and communicate to the HR Manager which employees, vendors, suppliers and systems are essential to maintaining operations at their locations.
- Identify and communicate to the HR Manager the names of possible ancillary employees who could perform certain job duties in the case of a pandemic (e.g. consultants, temporary work services, retired employees).
- Develop and communicate to the HR Manager an emergency communications plan for their departments/locations, including identification of key personnel, vendors, and customers.
- Develop and submit a plan to continue operations at their locations with the least possible number of staff.
- Ensure that all employees in their departments are adequately trained on emergency procedures in the case of a pandemic and in the prevention of illness.
- Encourage all employees to be vaccinated annually for influenza.
- Assist the Coordinator in the implementation of this plan, if necessary, at their locations.

Preparation

The HR Manager will maintain a list of contacts in the health profession to provide consultation and advice regarding this plan and its implementation.

Encourage employees to obtain appropriate immunizations.

The HR Manager will, at least annually prior to the influenza season, provide information to all employees regarding those practices that are recommended by public health officials that will reduce the spread of the infection. The HR Manager will also develop a list of recommended infection control supplies (hand soaps, tissues, and so on) and ensure that each location has a sufficient supply of them.

Routine cleaning/disinfection of surfaces such as desktops, keyboards, lunch tables, doorknobs, faucets, handrails, etc.. will be accomplished to prevent spread of diseases.

The HR Manager will maintain a list of duties and positions for which individual employees are cross-trained within the company. Should staffing levels drop due to an outbreak, supervisors can use this list to fill in positions where needed.



The HR Manager will maintain a list of duties that employees can perform from home, as well as any equipment (such as computers) that may be necessary to perform those duties. Supervisors can then draw on this list to have those duties performed by employees from home should it become necessary.

The HR Manager shall recommend to the executive team an emergency sick leave policy to be adopted in the event of a pandemic. The policy is to be non-punitive and require employees who have been exposed or who exhibit symptoms of the illness to remain at home.

The HR Manager and the Information Technology Manager will ensure that the agency has sufficient IT infrastructures to support employee telecommuting and remote access to agency services.

The Human Resources Manager will establish the following policies and procedures:

- Flexible work hours, including staggered work hours and telecommuting
- Restricting employee travel to affected areas
- Guidance for employees returning to the United States from affected areas
- Counseling services for all employees and their families, particularly those affected by illness
- Special procedures/accommodations for employees and customers with special needs or disabilities

The HR Manager shall develop a plan to keep employees informed of developments as they occur, including those employees who remain at home. This could include plans to obtain home e-mail addresses, telephone numbers for employees to call to receive recorded messages, pages on the website for employees, and so on. The plan must also include procedures for responding promptly to employees' questions about such issues as whether to report for work and special hours of operations during a flu outbreak.

An effective internal employee communication procedure will be developed to maintain communication during the pandemic.

The Pandemic Response Team will conduct random drills at all locations to test the effectiveness of our plan.

Should a Pandemic Occur

Should a pandemic occur, the HR Manager will, after consultation with knowledgeable health officials, implement the following steps, as deemed necessary:

- Encourage customers and potential customers to use remote facilities. The staffing of these services is to be increased as necessary to ensure that individuals using them receive prompt service and response so they will continue to use them.
- Employees with job duties that can be accomplished by telecommuting will be encouraged to work from home unless they have been cross-trained to work in place of an employee who is ill.
- The emergency sick leave policy shall be implemented. Supervisors will be instructed to send and keep employees home if they exhibit symptoms of the illness, working from home if practical.
- Team members will contact their key vendors to determine the impact of the outbreak on their operations and its effects on our ability to perform our daily functions, and they will communicate the



results to the HR Manager. The HR Manager will see to it that we obtain extra quantities of any necessary supplies that may be threatened due to the outbreak.

- The HR Manager, with the assistance of team members, will monitor staffing levels at all locations and assist supervisors in finding ways to maintain critical operations in light of any staffing shortage. Should the closing of any locations be a consideration due to inadequate staffing availability, the HR Manager will first contact the [Health Officer] to obtain their advice and consent prior to any closing. Should an office be closed, notices shall be posted prominently at the location informing customers of the situation and telling them where and how they can transact business. Telephone and other lines of communication must be routed to a location where they will be staffed by employees so customers' attempts to reach us do not go unanswered.
- The HR Manager is to ensure that the public is kept informed of any changes that affect their transaction of business with us. This information is to be included on the home page of our website, in the lobbies of our locations, and in other media as appropriate.
- The HR Manager is to implement the employee contact plan to ensure that all employees are kept informed of developments as they occur, including employees who remain at home.
- Limit large or crowded gathering of personnel if an outbreak or increased level of disease is in progress.

Testing Our Plan

The executive team directs the Emergency Preparedness Coordinator to conduct an annual assessment of our Pandemic Response Plan and submit its findings to the executive team with the Pandemic Coordinator's and individual managers' responses to exceptions.



DEB Construction, LLC

Confined Spaces

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities in confined spaces

SCOPE

Only employees who have been trained in the requirements of confined spaces standards can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of working in confined spaces and associated hazards to personnel and the public.



Every year several confined space entrants and would-be rescuers die from hazards, such as oxygen deficiency, toxic and explosive atmospheres, engulfment, and uncontrolled energized equipment.

A pre-entry atmospheric tests must be made before entering a confined space and the atmosphere must be periodically tested while persons are within the confined space.

To prevent such accidents, employers must be able to:

- Recognize confined spaces and which of them are permit-required confined spaces.
- Know, understand, and effectively implement T8 CCR Article 37 (1950-1962) and 5158 requirements. Section 5158 contains certain requirements not found in Article 37.

A. A confined space is defined in 1951 as a space that exhibits the following characteristics:

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

B. The following are examples of some of the locations that may exhibit confined-space conditions. 1950(a):

1. Pits (such as elevator, escalator, pump, valve, or other equipment)
2. Manholes (such as sewer, storm drain, electrical, communication, or other utility)
3. Tanks (such as fuel; chemical; water; or other liquid, solid, or gas)
4. Concrete pier columns
5. Sewers
6. Storm drains
7. Enclosed beams
8. Vessels
9. Cesspools
10. Turbines



C. A confined space entry permit must be completed before entering a confined space. A permit-required confined space is defined in 1951 as a confined space that also has one or more of the following characteristics:

1. Contains or has a potential to contain a hazardous atmosphere.
2. Contains a material that has the potential for engulfing an entrant.
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor, which slopes downward and tapers to a smaller cross-section.
4. Contains any other recognized serious safety or health hazard.

D. Before starting work at a worksite, the employer must have a competent person identify all confined spaces and permit-required confined spaces in which the employer's employees might work. 1952(a)

1. Test conditions in the permit space to determine if acceptable entry conditions exist before entry is authorized to begin, except that, if isolation of the space is infeasible because the space is large or is part of a continuous system (such as a sewer), pre-entry testing shall be performed to the extent feasible before entry is authorized and, if entry is authorized, entry conditions shall be continuously monitored in the areas where authorized entrants are working.

- Isolation means the process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as: Blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

E. Exposed employees at the worksite must be informed of any permit spaces by posting danger signs or by any other equally effective means. Employees' authorized representatives and the controlling contractor must also be informed – by other than posting - of the existence, location, and danger posed by each permit space. 1952(b)

1. Barriers/Barricades are used to prevent unauthorized entry into a confined space.

F. Whenever possible, employees should avoid entering these spaces or use equipment that allows work to be done from the outside. If employees must enter:

1. The employer must comply with the applicable Cal/OSHA regulations in T8 CCR. These include:
 - Section 1509 (Injury and Illness Prevention Program)
 - Article 6 (Excavations)



- Article 37 (Confined Spaces in Construction) of the Section 5158 (Other Confined Space Operations)
- Sections 2943(b) and 2943.1 (High Voltage Electrical Orders – Enclosed Spaces)
 2. All affected employers are required to have a written permit space program that complies with section 1953. In general, the employer must have:
 - Procedures to identify and evaluate all permit-required confined spaces before employee enter them.
 - Measures to prevent unauthorized entry into permit spaces.
 - A system for preparing, issuing, using, and canceling entry permits.
 - Procedures to test and monitor the permit spaces before and during all employee entries.
 - An attendant outside the permit space at all times while employees are working inside.
 - Effective controls of all existing and potential atmospheric and/or physical hazards inside the permit space. Pre-entry of confined spaces will have effective controls of all existing and potential atmospheric and/or physical hazards inside the permit spaces before entry. The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity to identify and evaluate any hazardous atmospheres that may exist or arise, Evaluation and interpretation of these data, and development of the entry procedure, should be done by, a technically qualified professional based on evaluation of all serious hazards. The atmospheric testing will be conducted periodically as indicated by the professional tester when the confined space while persons are within the confined space. Order of testing: A test for oxygen is performed first because most combustible gas meters are oxygen dependent and will not provide reliable readings in an oxygen deficient atmosphere. Combustible gases are tested for next because the threat of fire or explosion is both more immediate and more life threatening, in most cases, than exposure to toxic gasses and vapors. If tests for toxic gases and vapors are necessary, they are performed last.
- All potential hazardous energy sources, and materials such as electrical, mechanical, hydraulic, pneumatic, chemical, or thermal must be de-energized and isolated and locked out prior to the confined spaces to that equipment cannot be turned on unintentionally.
- Appropriate equipment (testing and monitoring tools, ventilation, PPE, lighting, rescue tools, etc.).
- Employee and supervisor training on safe work procedures, hazard identification and controls, and rescue procedures.
- Effective rescue and emergency procedures that are immediately available on site.



- Procedures to coordinate entry operations when employees of more than one employer enter the permit space.

G. Review

1. DEB will conduct an annual review of the confined space entry program.

H. Duties

Duties of authorized entrants. The employer shall ensure that all authorized entrants:

- A. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- B. Properly use equipment as required by paragraph (d)(4) of this section;
- C. Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space as required by paragraph (i)(6) of this section;
- D. Alert the attendant whenever:
 - a. The entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or
 - b. The entrant detects a prohibited condition; and
- E. Exit from the permit space as quickly as possible whenever:
 - a. An order to evacuate is given by the attendant or the entry supervisor,
 - b. The entrant recognizes any warning sign or symptom of exposure to a dangerous situation,
 - c. The entrant detects a prohibited condition, or
 - d. An evacuation alarm is activated.

Duties of attendants. The employer shall ensure that each attendant:

- A. Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- B. Is aware of possible behavioral effects of hazard exposure in authorized entrants;
- C. Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants under paragraph (f)(4) of this section accurately identifies who is in the permit space;
- D. Remains outside the permit space during entry operations until relieved by another attendant;

Duties of entry supervisors. The employer shall ensure that each entry supervisor:

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



- B. 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;
- C. Terminates the entry and cancels the permit as required by paragraph (e)(5) of this section;
- D. Verifies that rescue services are available and that the means for summoning them are operable;
- E. Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations; and
- F. 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.

The communication procedures used by authorized entrants and attendants to maintain contact during the entry;

To summon rescue, communications devices such as alarm systems, radios, or cellphones may be used dependent on the most realistic situation.

Equipment, such as personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment, to be provided for compliance with this section;

Note:

(1) This is just a partial list of the requirements of a permit space program.

(2) Refer to section 1952 for details on when permit-required confined spaces can be "reclassified" as non-permit, or permit-required confined spaces can be entered via

"alternate procedures."

(3) Refer to section 1950 for details on the scope and application of Article 37, including the following exceptions:

- a. Construction work regulated by Construction Safety Orders, Article 6, Excavations. However, a confined space created within an excavation may constitute a permit-required confined space covered by Article 37 requirements.
- b. Construction work regulated by the Tunnel Safety Orders. However, a confined space created within a tunnel (e.g., a pipe or other structure) may constitute a permit-required confined space covered by Article 37 requirements.



c. Construction work regulated by General Industry Safety Orders, Group 26, Diving Operations.

d. Construction work regulated by the General Industry Safety Orders, Article 154, Pressurized Worksite Operations.

(4) Section 5157 describes permit-required confined space requirements for non-construction operations.

Rescue and emergency services.

DEB will designate rescue and emergency services, pursuant to paragraph (d)(9) of this section, will:

1910.146(k)(1)(i)

Evaluate a prospective rescuer's ability to respond to a rescue summons in a timely manner, considering the hazard(s) identified;

Note to paragraph (k)(l)(i): What will be considered timely will vary according to the specific hazards involved in each entry. For example, §1910.134, Respiratory Protection, requires that employers provide a standby person or persons capable of immediate action to rescue employee(s) wearing respiratory protection while in work areas defined as IDLH atmospheres.

1910.146(k)(1)(ii)

Evaluate a prospective rescue service's ability, in terms of proficiency with rescue-related tasks and equipment, to function appropriately while rescuing entrants from the particular permit space or types of permit spaces identified;

1910.146(k)(1)(iii)

Select a rescue team or service from those evaluated that:

1910.146(k)(1)(iii)(A)

Has the capability to reach the victim(s) within a time frame that is appropriate for the permit space hazard(s) identified;

1910.146(k)(1)(iii)(B)

Is equipped for and proficient in performing the needed rescue services;

1910.146(k)(1)(iv)

Inform each rescue team or service of the hazards they may confront when called on to perform rescue at the site; and

1910.146(k)(1)(v)



Provide the rescue team or service selected with access to all permit spaces from which rescue may be necessary so that the rescue service can develop appropriate rescue plans and practice rescue operations.

1910.146(k)(2)

An employer whose employees have been designated to provide permit space rescue and emergency services shall take the following measures:

1910.146(k)(2)(i)

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, at no cost to those employees;

1910.146(k)(2)(ii)

Train affected employees to perform assigned rescue duties. The employer must ensure that such employees successfully complete the training required to establish proficiency as an authorized entrant, as provided by paragraphs (g) and (h) of this section;

1910.146(k)(2)(iii)

Train affected employees in basic first-aid and cardiopulmonary resuscitation (CPR). The employer shall ensure that at least one member of the rescue team or service holding a current certification in first aid and CPR is available; and

1910.146(k)(2)(iv)

Ensure that affected employees practice making 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. Representative permit spaces shall, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed.

1910.146(k)(3)

To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Retrieval systems shall meet the following requirements.

1910.146(k)(3)(i)

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. Wristlets may be used in lieu of the chest or full body harness if the employer can



demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.

1910.146(k)(3)(ii)

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

1910.146(k)(4)

If an injured entrant is exposed to a substance for which a Safety Data Sheet (SDS) or other similar written information is required to be kept at the worksite, that SDS or written information shall be made available to the medical facility treating the exposed entrant.



DEB Construction, LLC

Excavations, Trenches, and Earthwork

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities in excavation, trenches, and earthwork

SCOPE

Only employees who have been trained in the requirements of confined spaces standards can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of working in excavation, trenches, and earthwork and associated hazards to personnel and the public.



Hazards associated with excavation are cave-ins; the striking of underground utilities; falling tools, materials, and equipment; and hazardous air contaminants or oxygen-deficient environments.

A. The minimum safety requirements are as follows:

1. Before opening an excavation, these actions must be taken: 1541

a. Must identify subsurface installations prior to opening an excavation and ensure they are marked.

b. Two working days before starting the work, notify all installations owners who are not members of the notification centers. Exception: Emergency repair work to subsurface facilities done in response to an emergency, as defined in Government Code section 4216(d).

c. Must receive a positive response from all known owners/operators of subsurface installations.

d. Must meet with owners/operators of high priority (such as high-pressure pipelines, natural gas/petroleum pipelines, electrical lines greater than 60,000 volts, etc.) and subsurface installations that are located within 10ft. of the proposed excavation.

e. Only qualified persons (persons that meet training and competency requirements) can perform subsurface installation locating activities.

f. All exposed employees must be trained in excavator notification/excavation activities.

g. Obtain a permit from DOSH if workers are required to enter an excavation that is 5 ft. deep or deeper. 341(a)(1)

2. While excavating, the exact locations of the underground utilities must be determined by safe and acceptable means. 1541(b)(3)

3. Excavators must immediately notify the subsurface installation owner/operator of any damage discovered during or caused by excavating activities. If the damage or escaping material endangers life or property, immediately notify 911.

4. While the excavation is open, the underground utilities must be protected, supported, or removed as necessary. 1541(b)(4)



5. Employees shall not work under suspended loads

6. Employees shall not enter an excavation where water has accumulated or is accumulating unless adequate precautions are taken to protect workers.

a. Such precautions include special support or shield systems to prevent cave-ins, water removal to control the water level, or the use of a safety harness and lifeline.

b. If employer uses water removal equipment to control or prevent water accumulation, the equipment must be monitored by a competent person.

c. Diversion ditches, dikes, or other suitable means to prevent surface water from entering the excavation and to provide adequate drainage of the adjacent area.

B. When employees are in an excavation, the following requirements apply:

1. Employees shall be protected from cave-ins by an appropriate protective system. 1541.1(a)(1) Exception: If excavations are made entirely in stable rock or are less than 5 ft. deep, and a competent person has determined that there is no potential for a cave-in, no protective system is needed.

2. A competent person must be on site to do the following:

a. Conduct inspections of the excavations, adjacent areas, and protective systems before the start of work, cave ins, failures, hazardous atmospheres, or other hazards. 1541(k)(1)

b. Take prompt corrective action or remove employees from the hazard.

3. The competent person must be able to demonstrate the following:

a. The ability to recognize all possible hazards associated with excavation work and to test for hazardous atmospheres.

b. Knowledge of the current safety orders pertaining to excavation and trenching.

c. The ability to analyze and classify soils.

d. Knowledge of the design and use of protective systems.

e. The authority and ability to take prompt corrective action when conditions change.



C. Requirements for protective systems include the following:

1. Protective system design must be based on soil classification: Stable rock, Type A, B, or C soils. 1541.1 Appendix A (b), (c)

2. Soil classification is required as follows unless the protective system design is based on Type C soil:

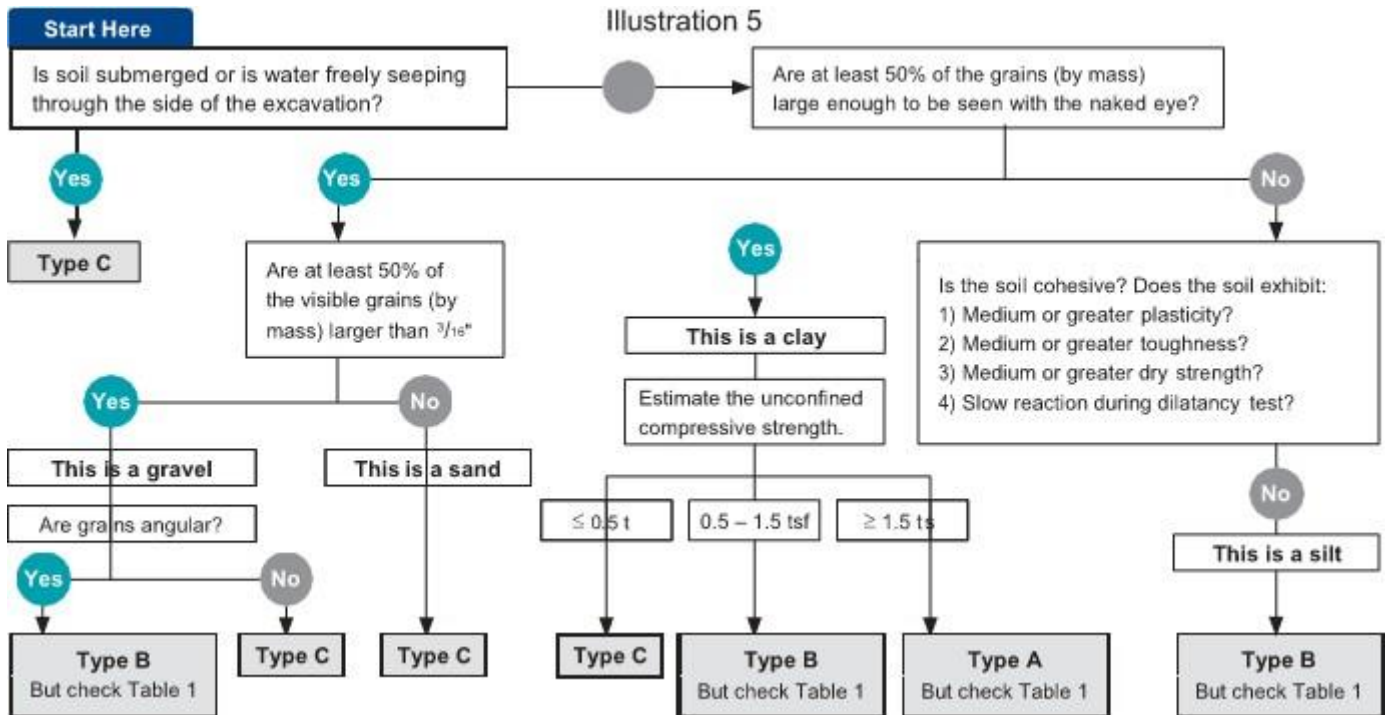
a. Classification must take into account both site and environmental conditions. 1541.1 Appendix A (a)(1)

b. Soil must be classified by a competent person as Type A, B, or C soil. 1541.1 Appendix A (c)(1)

c. Classification must be based on the results of at least one visual and at least one manual analysis. 1541.1 Appendix A (c)(2)

Table 1 | Site Conditions That Affect Rock/Soil Slope Stability

Condition	Requirement
Soil is fractured/unstable dry rock.	Downgrade to Type B.
Soil is fractured/unstable submerged rock.	Downgrade to Type C.
Soil is cemented (caliche, hardpan, etc.)	Classify as Type A.
Soil is fissured.	Downgrade from Type A to Type B.
Soil is subject to vibration.	Downgrade from Type A to Type B.
Soil has been previously disturbed.	Downgrade from Type A to Type B.
Soil is submerged or water is freely seeping through the sides of the excavation.	Downgrade from Type A to Type C. Downgrade from Type B to Type C.
Soil profile is layered with the layers dipping into the excavation on a slope of four horizontal or steeper.	Downgrade from Type A to Type C. Downgrade from Type B to Type C.



3. Standard shoring, sloping, and benching must be used as specified in 1540 and 1541.1(b) or according to tabulated data prepared by a registered engineer (see Illustrations 6–8 below).

4. Protective systems for excavations deeper than 20 ft. shall be designed by a registered engineer. 1541.1 Appendix F

5. Additional bracing must be used when vibration or surcharge loads are a hazard. 1541.1 Appendix A

6. Excavations must be inspected as needed after every rainstorm, earthquake, or other hazard-increasing occurrence (water in the excavation may require a reclassification of soil type). 1541(k)(1)

7. Employees must be protected from falling materials by scaling, installation of protective barriers, or other methods. 1541(j)(1)

8. Uprights shall extend to the top of the trench and its lower end not more than 2 feet from the bottom of the trench. 1541(j)(1)

9. Employees must be protected from excavated or other material and vehicular traffic by keeping such material 2 ft. from the excavation edge or by using barrier devices. 1541(j)(2)

10. Ladders or other safe access must be provided within a lateral distance no more than 25 ft. away from employees in an excavation in a work area in trenches 4 ft. or deeper. 1541(c)(2)

11. Excavation beneath the level of adjacent foundations, retaining walls, or other structures is prohibited unless requirements of 1541(i) have been met. 1541(i)(1)

12. Shored, braced, or underpinned structures must be inspected daily when stability is in danger. 1541(i)(2)

13. Walkways or bridges with standard guardrails must be installed when employees or equipment are required or permitted to cross over excavations that are at least 6 ft. deep and wider than 30 in. 1541(l)(1)

14. Barriers must be erected around excavations in remote locations. All wells, pits, shafts, and caissons must be covered or barricaded, or if temporary, backfilled when work is completed. 1541(l)(2)

Illustration 6 | Benching & Sloping For Excavations Made in Type "A" Soil

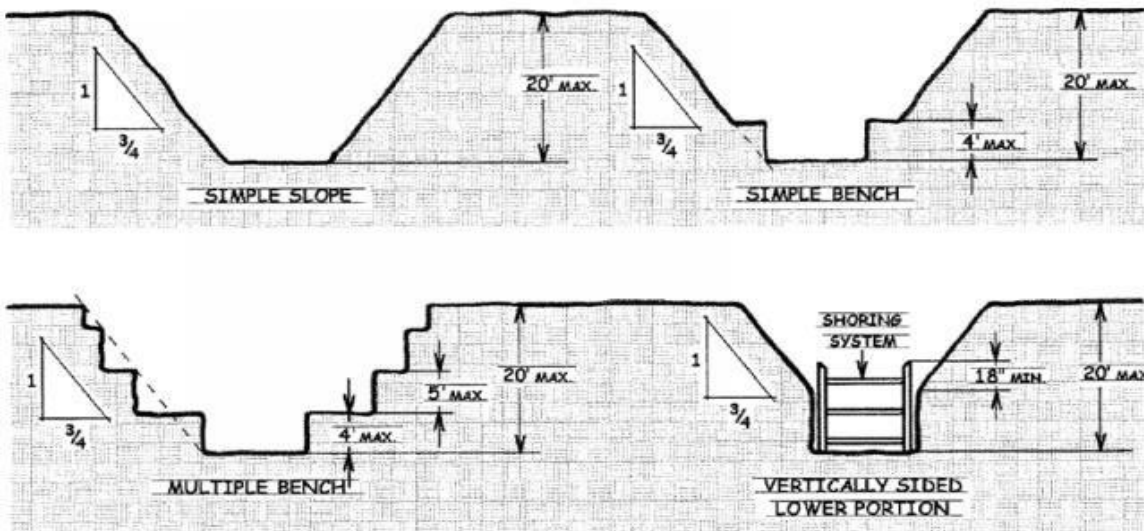


Illustration 7 | Benching & Sloping For Excavations Made in Type "B" Soil

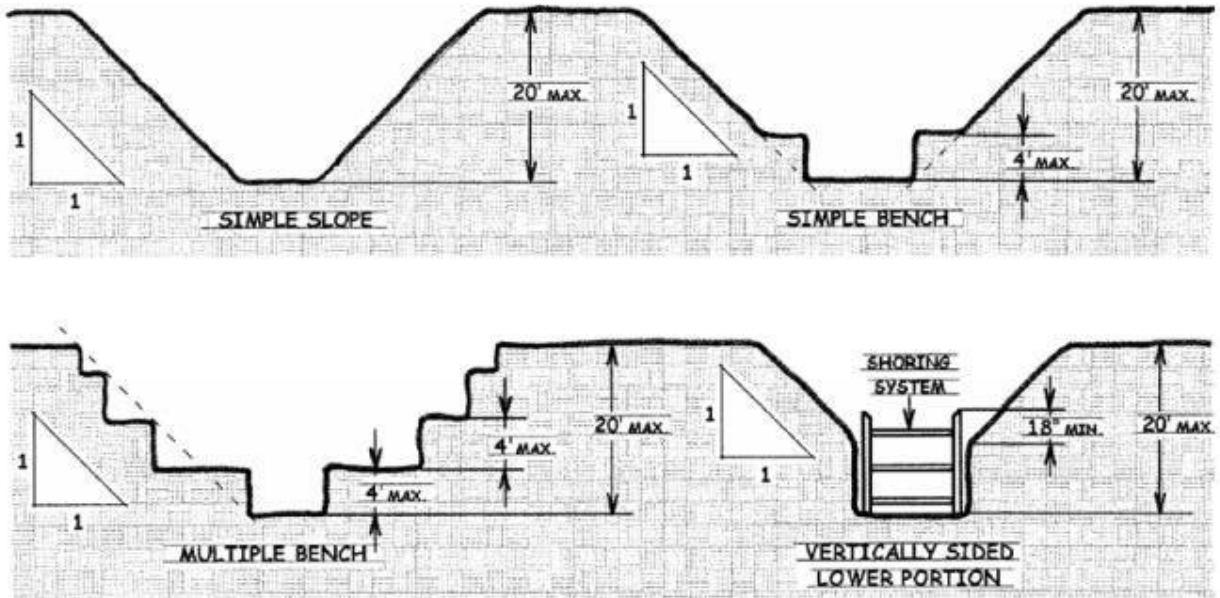
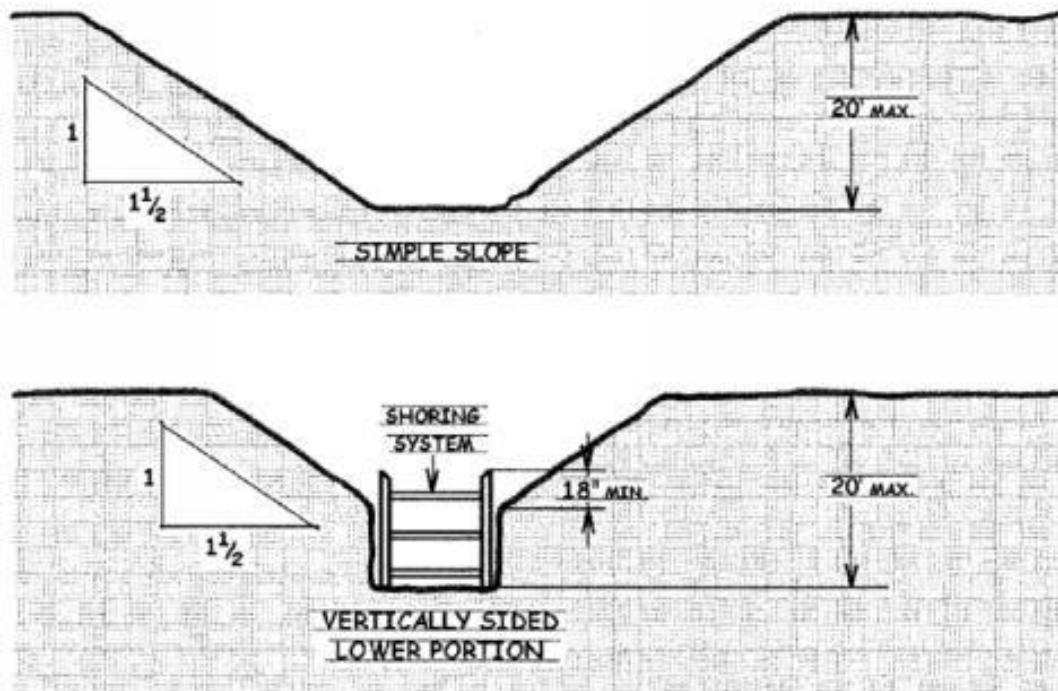


Illustration 8 | Benching & Sloping For Excavations Made in Type "C" Soil





D. Safety orders pertaining to shafts and wells include the following:

1. All shafts and wells more than 5 ft. deep into which workers are required to enter must be retained with lagging, spiling, or casing. 1542(a)(1)
2. Tests or procedures shall be performed before entry into exploration shafts to ensure the absence of dangerous air contamination or oxygen deficiency. 1542(c)(3), 5158
3. An employee entering a bell-bottom pier hole or other deep or confined-footing excavation shall wear a harness that has a lifeline attended by another employee. 1541(g)(2)(B)
4. Shafts in other than hard, compact soil shall be completely lagged and braced. 1542(c)(1)
5. Head protection is required for workers who enter a well or shaft. 3381
6. Shafts more than 20 ft. deep are subject to the TSOs.8403(a)
7. Provide mechanical exhaust ventilation system and forced air blower or both for shafts 20 ft. or less which employees enter and where hazardous atmosphere exists or reasonably expected to exist due to internal combustion engine operation. 1533(b)



DEB Construction, LLC

Lead Abatement

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities with lead abatement.

SCOPE

Only employees who have been trained in the requirements of confined spaces standards can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of working with lead and associated hazards to personnel and the public.



Occupational exposures to lead can occur in construction activities, such as plumbing system retrofits; the spraying, removal, or heating of paint that contains lead; and the welding, cutting, and grinding of lead-containing construction materials.

Occupational lead exposures can affect workers as well as family members and friends who come in contact with the “take-home” lead on the worker’s clothing, hair, hands, etc. The toxic effects of lead on the human body have been well documented and include damage to the kidneys, brain, and reproductive organs that, in turn, causes the loss of kidney function, sterility, decreased fertility, and birth defects and mental retardation in offspring.

Because of the serious, and in many cases life threatening, health effects of lead, the employer must be thoroughly knowledgeable about the regulations to protect people from lead exposure before their employees engage in any work exposing them to lead. 1532.1

A. Cal/OSHA enforces the “Lead in Construction Safety Orders,” which make employers responsible for the following: 1532.1.

1. For each job site, the lead hazard must be assessed. 1532.1(d)(1)
2. Where lead is present, medical surveillance must be conducted along with:
 - a. Lead dust must be controlled by HEPA vacuuming, wet cleanup, or other effective methods. 1532.1(h)
 - b. The employer shall assure that food, beverage, and tobacco products are not present or used in areas where employees are exposed to lead above the PEL. The employer shall provide hygiene facilities for changing, showering, eating, and hand washing. 1532.1(i)
 - c. Workers shall have access to labels on containers of lead and safety data sheets, and must be trained as per 5194 and 1532.1, 1532.1(l)(1)(A).
 - d. The employer shall implement a written compliance program to control hazardous lead exposures. 1532.1(e)
 - e. The employer shall provide the worker with and require the use of appropriate personal protective equipment. 1532.1(f), (g)
 - f. The employer shall ensure that all protective clothing is removed at the completion of a work shift only in change areas provided for that purpose. 1532.1(g)

B. The permissible exposure limits (PELs) for airborne lead are 0.05 milligrams per cubic meter of air (mg/m³) and an action level of 0.03 mg/m³, both as an 8-hour time-weighted average (TWA). 1532.1(b)(c)



C. Trigger tasks are certain highly hazardous tasks that carry the presumption of airborne exposure above the PEL. They require special protective measures until it is determined that worker airborne exposures to lead are below levels specified in 1532.1.

Following are the three levels of trigger tasks (as provided in Cal/OSHA's "Lead in Construction" fact-sheet [https://www.dir.ca.gov/dosh/dosh_publications/lead-fct-sheet-rev.pdf]) involving lead-containing materials and their associated respirator requirements: 1532.1(d)(2)

1. Level 1 trigger tasks: Spray painting, manual demolition, manual scraping or sanding, using a heat gun, and power tool cleaning with dust collection system.

- Minimum respirator requirement: a half-mask respirator with N100, R100, or P100 filters

2. Level 2 trigger tasks: Using lead-containing mortar; burning lead; rivet busting; cleaning power tools without a dust collection system; using dry, expendable abrasives for clean-up procedures; moving or removing an abrasive blasting enclosure.

- Minimum respirator requirement: A full-face mask respirator with N100, R100, or P100 filters; a supplied- air hood or helmet; or a loose-fitting hood or helmet with a powered air-purifying respirator with N100, R100, or P100 filters

3. Level 3 trigger tasks: Abrasive blasting, welding, cutting, or torch burning on structures

- Minimum respirator requirement: A half-mask supplied-air respirator operated in a positive pressure mode

D. Protective requirements for all trigger tasks and any other task that may cause a lead exposure above the PEL include the following:

1. Respirators, protective equipment, and protective clothing. 1532.1(f), (g)

2. Clothing change areas and a shower. 1532.1(i)

3. Initial blood tests for lead and zinc protoporphyrin. 1532.1(j)

4. Basic lead hazard, respirator, and safety training. 1532.1(l)

5. The employer shall post the following warning signs in each regulated area or work area where an employee's exposure to lead is above the PEL. 1532.1(m)(1)(a)

DANGER

LEAD WORK AREA

MAY DAMAGE FERTILITY OR THE UNBORN CHILD

CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM



DO NOT EAT, DRINK OR SMOKE IN THIS AREA

Note: The above protective requirements must be enforced until worker airborne exposures are shown to be below levels specified in 1532.1.

E. Blood lead monitoring is especially important for evaluating work and hygiene practices that may result in lead ingestion. Employees whose blood lead levels exceed specified limits must be removed from the work with exposure to lead at or above the action level. These workers must be provided with normal earnings, seniority, and other employee rights and benefits for 18 months or until the job from which they were removed is discontinued, whichever occurs first. Mandatory medical removal of an employee due to lead (or other regulated chemicals) must be recorded on the Log 300 with a check in the "poisoning" column. 1532.1(k)(2), 14300.9

F. Employer shall notify an employee whose blood lead level is at or above 40 µg/dl that medical removal protection with benefits is required when a blood lead level is at or above 50 µg/dl. 1532.1(j)(2)(D)(2)

Note: Many physicians are now choosing to place employees on medical removal protection at blood lead levels above 20 µg/dl, rather than 50 µg/dl. Thus, employers should target for the 20 µg/dl level as they evaluate the BLL results.

G. Feasible engineering and work practice controls must be implemented to maintain employee exposures to lead below the PELs.

H. A written compliance program that details how lead exposures will be controlled is required. 1532.1(e)

I. On jobs at residential and public-access buildings, workers whose exposures to lead measure above the PELs and their supervisors must receive state-approved training and certification by the California Department of Health Services.

J. Records of air monitoring, blood lead testing, and medical removal must be maintained. 1532.1(n)

K. Employers who conduct lead work listed in 1532.1(d)(2) must notify the Division, in writing, at least 24 hours before the start of work. 1532.1(p)

L. The "LEAD-WORK PRE-JOB NOTIFICATION" form with required information is available from Cal/OSHA at www.dir.ca.gov/DOSH/leadnotification.pdf



DEB Construction, LLC

Welding, Cutting, Hot Work

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities involving welding, cutting, & hot work.

SCOPE

Only employees who have been trained in the requirements of confined spaces standards can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of working with welding, cutting, & hot work hazards to personnel and the public.



Each year, numerous deaths from explosions, electrocutions, asphyxiation, falls, and crushing injuries are associated with hot work activities. These deaths from hot work often occur in confined or restricted spaces. In addition, numerous health hazards, including heavy metal poisoning, lung cancer, metal fume fever, flash burns, and welders flash (burn to the eyes) are associated with exposure to fumes, gases, and ionizing and non-ionizing radiation formed or released during welding, cutting, brazing, and other hot work.

A. Before workers begin hot work, Training on the following controls must be established:

1. No welding is permitted in an explosive environment. 4848
2. A written "hot work" permit is recommended whenever a combustible environment may exist. 4848
3. All combustible materials in the work area must be removed or shielded. 4848
4. Suitable fire extinguishers that meet NFPA and ANSI Standards must be provided in the work area. 4848
5. Welding blankets, curtains, and pads shall be approved for their intended use in accordance with section 3206. 4848(b)
6. Employers must instruct employees on hot work safety. 4848(a)
7. Welders must be required to wear:
 - a. Non-flammable gloves with gauntlets. 3384
 - b. Appropriate foot protection. 3385
 - c. Aprons (leather) and shirts that have sleeves and collars. 1522(a)
 - d. Helmets, hoods, and face shields suitable for head protection. 3381(a), 3382(a)

Guards/Shields are used if hot work activities cannot be separated from combustible materials
 - e. Suitable eye protection. 3382
 - f. Respiratory protection (as required). 5144
 - g. Screens must be provided to protect the eyes of non-welders from flash burns and ultraviolet light rays. 3382(b)



B. Gas welding is regulated as follows:

1. Fuel gas and oxygen hoses must be distinguished from each other. Training on the fuel-gas systems will be accomplished prior to use. 1742(a)
2. Couplings must not disconnect by means of a straight-pull motion. 1742(g)
3. Oil or grease must never come into contact with oxygen equipment. 1743(c)
4. Oxygen from a system without a pressure regulation device must never be used. 1743(e)
5. Cylinders having leaking fuse plugs or other leaking safety devices shall be plainly tagged, and the supplier shall be promptly notified of the condition and his instructions followed. A warning shall be placed near the cylinders prohibiting any approach to them with a lighted cigarette or other source of ignition.

5. Gas cylinders must be stored and used as follows:

- a. Cylinders must be protected from all heat sources. 1740(a)
- b. Cylinders containing oxygen, acetylene, or fuel gases shall not be taken into confined spaces. 1740(b)
- c. Acetylene and fuel gas cylinders, including but not limited to welding and cutting fuel gas cylinders, shall be stored and used with the valve end up. 1740(b)

Exception: Fuel gas cylinders containing fuel gas used to power industrial trucks regulated by Article 25 of the GISO.

- d. All gas cylinders in service shall be securely held in substantial fixed or portable racks, or placed so they will not fall or be knocked over. 1740(c)
- e. Cylinders must be handled in suitable cradles with their valve caps installed; they must never be lifted by magnet, rope, or chain. 1740(c), (d)
- f. Cylinders must not be placed where they might form a part of any electric circuit. 1740(e)
- g. Oxygen cylinders in storage shall be separated from fuel gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 ft. or by a noncombustible barrier at least 5 ft. high having a fire-resistance rating of at least one-half hour. 1740(g)



h. Valve stem wrenches must be left in place while cylinders are in use. 1743(g)

i. A fire extinguisher rated at least 10 B:C must be kept near the operation.
1743(j)

j. Backflow protection is required. 4845(b)

K. Before connecting a regulator to a cylinder valve, the valve shall be opened slightly and closed immediately. (This action is generally termed "cracking" and is intended to clear the valve of dust or dirt that might otherwise enter the regulator.) The valve shall be opened while standing to one side of the outlet; never in front of it. A fuel-gas cylinder valve shall never be opened up, cracked near other welding work or near sparks, flame, or other possible sources of ignition.

C. Arc welding is regulated as follows:

1. Cables in poor condition must not be used; no cable may be spliced within 10 ft. of the electrode holder. 4851(e)(2)

2. The frames of arc welding and cutting machines must be grounded. 4851(f)(5)

3. Electrodes and holders that are not in use shall be protected so they cannot make electrical contact with employees or conducting objects. 4851(g)

4. Defective equipment must not be used. 4851(j)

5. Protective screens/guards are used during welding.

6. Welding machines will always be positioned outside of all confined spaces, and heavy portable equipment shall be blocked to prevent accidental movement.

7. When arc welding is performed in wet or high humidity conditions, employees shall use additional protection, such as rubber pads or boots, against electric shock.

D. Ventilation regulations for welding, cutting, and brazing operations require that Workers' exposures to hazardous fumes, gases, and vapors be reduced below PELs. 1536,1537, 5155

Mechanical Ventilation for Indoor Operations. Local exhaust systems providing a minimum air velocity of 100 lineal feet per minute in the welding zone shall be used except as otherwise specified by this section.



(1) Where local exhaust ventilation is not feasible, mechanical dilution ventilation sufficient to prevent exposure to concentrations of airborne contaminants from exceeding those specified in Section 5155 shall be provided.

(2) Respiratory protective equipment, in accordance with Section 1531, shall be used when the methods described in paragraphs (a) and (a)(1) above are not feasible.

(b) Toxic Substances Used in Any Enclosed Space.

(1) Local exhaust ventilation shall be used when potentially hazardous materials are employed as base metals, fluxes, coatings, platings or filler metals. These include, but are not limited to, the following materials:

- | | |
|---------------|---|
| (A) Beryllium | (E) Lead |
| (B) Cadmium | (F) Mercury |
| (C) Chromium | (G) Zinc |
| (D) Fluorides | (H) Inert-gas metal-arcwelding or oxygen cutting of stainless steel |

(2) When the nature of the work is such that local exhaust ventilation is not an effective means for preventing potentially hazardous exposure levels, as specified by Section 5155, supplied-air respirators shall be worn.

(c) Toxic Substances Used in the Open Air. Where toxic substances such as those listed in paragraph (b)(1) are used, respiratory protective equipment, in accordance with Section 1531, shall be provided except as otherwise specified by this subsection.

(1) In operations involving beryllium-containing base or filler metals, only supplied-air respirators shall be used.

(2) Except for operations involving beryllium, cadmium, lead, or mercury, respiratory protective equipment is not required when natural or mechanical ventilation is sufficient to remove welding fumes from the breathing zone of the workers.

(d) Improper Use of Welding Gases. Compressed gases used for welding and cutting shall not be used for ventilation purposes, comfort cooling, blowing dust from clothing, or cleaning the work area. Compressed gases need to be handled safely at all times.

(e) Chlorinated Hydrocarbons. Degreasing or other operations involving chlorinated hydrocarbons shall be located or controlled such that vapors from these operations will



not enter the atmosphere surrounding any welding or cutting operations to prevent the degradation of such chlorinated hydrocarbon vapors to more highly toxic gases by the action of heat or ultraviolet radiation.

(f) Precautionary Labels. Hazardous materials used in welding and cutting shall bear precautionary labels as required by Section 5150 of the General Industry Safety Orders.

1. Outdoor operations - Respirators are required for any operation involving beryllium, cadmium, lead, or mercury. For other operations and materials, respirators are not required when natural or mechanical ventilation is sufficient to prevent exposure to airborne contaminants in excess of the PELs noted in 5155. 1536(c).

2. Indoor operations - Respirators shall be used when local exhaust or mechanical ventilation is not feasible or able to prevent exposures that exceed limits specified in 5155.

E. In enclosed spaces supplied-air respirators shall be used when local exhaust ventilation is not an effective means for preventing potentially hazardous exposures. 1536(b), 5152

F. Employer needs to include all potentially hazardous materials involved in welding and cutting such as fluxes, coatings, coverings, and filler metals in the HAZCOM program. Employer also must provide employee access to labels and safety data sheets, and train employees, as per 5194, 5150.

E. Fire Watch

1. Fire watchers shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop, or any of the following conditions exist:

A. Appreciable combustible material, in building construction or contents, closer than 35 feet (10.7 m) to the point of operation.

B. Appreciable combustibles are more than 35 feet (10.7 m) away but are easily ignited by sparks.

C. Wall or floor openings within a 35-foot (10.7 m) radius expose combustible material in adjacent areas including concealed spaces in walls or floors.



D. Combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs and are likely to be ignited by conduction or radiation.

2. Fire watchers shall have fire extinguishing equipment readily available and be trained in its use. They shall be familiar with facilities for sounding an alarm in the event of a fire. They shall watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm. A fire watch shall be maintained for at least a half hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.

G. Ground Connections

Ground return cables will have adequate current-carrying capacity equal to or exceeding the total maximum output capacities of the welding or cutting units served.

When electrode holders are left unattended, electrodes shall be removed and holders placed to prevent employee injury.

(h) Hot electrode holders shall not be dipped in water.

(i) The employer shall ensure that when arc welders or cutters stop work the power supply must be in the off position, or when machines are moved, the power supply switch shall be kept in the off position.

(j) Arc welding or cutting equipment having a functional defect shall not be used.

(k) The control apparatus of arc welding machines shall be enclosed except for operating wheels, levers, and handles.

(l) Input power terminals, top change devices and live metal parts connected to input circuits shall be enclosed and accessible only by means of insulated tools.

(m) When arc welding is performed in wet, damp or humid conditions, employees shall use and be provided additional protection, such as rubber pads or boots, against electric shock.



DEB Construction, LLC

Cranes

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities involving Cranes.

SCOPE

Only employees who have been trained in the requirements of Cranes can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of a Cranes hazards to personnel and the public.



A. Assembly/Disassembly:

1. Supervision--competent-qualified person.

(a) Assembly/disassembly must be directed by a person who meets the criteria for both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons ("A/D director").

(b) Where the assembly/disassembly is being performed by only one person, that person must meet the criteria for both a competent person and a qualified person. For purposes of this standard, that person is considered the A/D director.

2. Knowledge of procedures. The A/D director must understand the applicable assembly/disassembly procedures.

3. Review of procedures. The A/D director must review the applicable assembly/disassembly procedures immediately prior to the commencement of assembly/disassembly unless the A/D director understands the procedures and has applied them to the same type and configuration of equipment (including accessories, if any).

4. Crew instructions.

(a) Before commencing assembly/disassembly operations, the A/D director must ensure that the crew members understand all of the following:

i. Their tasks.

ii. The hazards associated with their tasks.

iii. The hazardous positions/locations that they need to avoid.

(b) During assembly/disassembly operations, before a crew member takes on a different task, or when adding new personnel during the operations, the requirements in paragraphs (i) through (iii) of this section must be met.

5. Protecting assembly/disassembly crew members out of operator view.

(a) Before a crew member goes to a location that is out of view of the operator and is either in, on, or under the equipment, or near the equipment (or load) where the crew member could be injured by movement of the equipment (or load), the crew member must inform the operator that he/she is going to that location.



(b) Where the operator knows that a crew member went to a location covered by paragraph (5)(a) of this section, the operator must not move any part of the equipment (or load) until the operator is informed in accordance with a pre-arranged system of communication that the crew member is in a safe position.

6. Working under the boom, jib or other components.

(a) When pins (or similar devices) are being removed, employees must not be under the boom, jib, or other components, except where the requirements of paragraph (6)(b) of this section are met.

(b) Exception. Where the employer demonstrates that site constraints require one or more employees to be under the boom, jib, or other components when pins (or similar devices) are being removed, the A/D director must implement procedures that minimize the risk of unintended dangerous movement and minimize the duration and extent of exposure under the boom. (See Non-mandatory Appendix B of this subpart for an example.)

(c) Capacity limits. During all phases of assembly/disassembly, rated capacity limits for loads imposed on the equipment, equipment components (including rigging), lifting lugs and equipment accessories, must not be exceeded for the equipment being assembled/disassembled.

7. Addressing specific hazards. The A/D director supervising the assembly/disassembly operation must address the hazards associated with the operation, which include:

(a) Site and ground bearing conditions. Site and ground conditions must be adequate for safe assembly/disassembly operations and to support the equipment during assembly/disassembly (see § 1926.1402 for ground condition requirements).

(b) Blocking material. The size, amount, condition and method of stacking the blocking must be sufficient to sustain the loads and maintain stability.

(c) Proper location of blocking. When used to support lattice booms or components, blocking must be appropriately placed to:

- i. Protect the structural integrity of the equipment, and
- ii. Prevent dangerous movement and collapse.

(d) Verifying assist crane loads. When using an assist crane, the loads that will be imposed on the assist crane at each phase of assembly/disassembly must be verified in accordance with § 1926.1417(o)(3) before assembly/disassembly begins.



(e) Boom and jib pick points. The point(s) of attachment of rigging to a boom (or boom sections or jib or jib sections) must be suitable for preventing structural damage and facilitating safe handling of these components.

(f) Center of gravity.

i. The center of gravity of the load must be identified if that is necessary for the method used for maintaining stability.

ii. Where there is insufficient information to accurately identify the center of gravity, measures designed to prevent unintended dangerous movement resulting from an inaccurate identification of the center of gravity must be used. (See Non-mandatory Appendix B of this subpart for an example.)

(g) Stability upon pin removal. The boom sections, boom suspension systems (such as gantry A-frames and jib struts), and components must be rigged or supported to maintain stability upon the removal of the pins.

(h) Snagging. Suspension ropes and pendants must not be allowed to catch on the boom or jib connection pins or cotter pins (including keepers and locking pins).

(i) Struck by counterweights. The potential for unintended movement from inadequately supported counterweights and from hoisting counterweights.

(j) Boom hoist brake failure. Each time reliance is to be placed on the boom hoist brake to prevent boom movement during assembly/disassembly, the brake must be tested prior to such reliance to determine if it is sufficient to prevent boom movement. If it is not sufficient, a boom hoist pawl, other locking device/back-up braking device, or another method of preventing dangerous movement of the boom (such as blocking or using an assist crane) from a boom hoist brake failure must be used.

(k) Loss of backward stability. Backward stability before swinging the upperworks, travel, and when attaching or removing equipment components.

(l) Wind speed and weather. The effect of wind speed and weather on the equipment.

8. Cantilevered boom sections. Manufacturer limitations on the maximum amount of boom supported only by cantilevering must not be exceeded. Where these are unavailable, a registered professional engineer familiar with the type of equipment involved must determine in writing this limitation, which must not be exceeded.

9. Weight of components. The weight of each of the components must be readily available.



10. Components and configuration.

(a) The selection of components, and configuration of the equipment, that affect the capacity or safe operation of the equipment must be in accordance with:

i. Manufacturer instructions, prohibitions, limitations, and specifications. Where these are unavailable, a registered professional engineer familiar with the type of equipment involved must approve, in writing, the selection and configuration of components; or

ii. Approved modifications that meet the requirements of § 1926.1434 (Equipment modifications).

(b) Post-assembly inspection. Upon completion of assembly, the equipment must be inspected to ensure compliance with paragraph (10)(a) of this section

11. Shipping pins. Reusable shipping pins, straps, links, and similar equipment must be removed. Once they are removed they must either be stowed or otherwise stored so that they do not present a falling object hazard.

12. Pile driving. Equipment used for pile driving must not have a jib attached during pile driving operations.

13. Outriggers and Stabilizers. When the load to be handled and the operating radius require the use of outriggers or stabilizers, or at any time when outriggers or stabilizers are used, all of the following requirements must be met (except as otherwise indicated):

(a) The outriggers or stabilizers must be either fully extended or, if manufacturer procedures permit, deployed as specified in the load chart.

(b) The outriggers must be set to remove the equipment weight from the wheels, except for locomotive cranes (see paragraph (q)(6) of this section for use of outriggers on locomotive cranes). This provision does not apply to stabilizers.

(c) When outrigger floats are used, they must be attached to the outriggers. When stabilizer floats are used, they must be attached to the stabilizers.

(d) Each outrigger or stabilizer must be visible to the operator or to a signal person during extension and setting.

(e) Outrigger and stabilizer blocking must:

i. Meet the requirements in paragraphs (h)(2) and (h)(3) of this section.



ii. Be placed only under the outrigger or stabilizer float/pad of the jack or, where the outrigger or stabilizer is designed without a jack, under the outer bearing surface of the extended outrigger or stabilizer beam.

(f) For locomotive cranes, when using outriggers or stabilizers to handle loads, the manufacturer's procedures must be followed. When lifting loads without using outriggers or stabilizers, the manufacturer's procedures must be met regarding truck wedges or screws.

14. Rigging. In addition to following the requirements in 29 CFR 1926.251 and other requirements in this and other standards applicable to rigging, when rigging is used for assembly/disassembly, the employer must ensure that:

(a) The rigging work is done by a qualified rigger.

(b) Synthetic slings are protected from: Abrasive, sharp or acute edges, and configurations that could cause a reduction of the sling's rated capacity, such as distortion or localized compression. Note: Requirements for the protection of wire rope slings are contained in 29 CFR 1926.251(c)(9).

(c) When synthetic slings are used, the synthetic sling manufacturer's instructions, limitations, specifications and recommendations must be followed.

B. Cranes:

1. Hazard assessments and precautions inside the work zone. Before beginning equipment operations, the employer must:

(a) Identify the work zone by either:

i. Demarcating boundaries (such as with flags, or a device such as a range limit device or range control warning device) and prohibiting the operator from operating the equipment past those boundaries, or

ii. Defining the work zone as the area 360 degrees around the equipment, up to the equipment's maximum working radius.

(b) Determine if any part of the equipment, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the work zone, could get closer than 20 feet to a power line. If so, the employer must meet the requirements in Option (1), Option (2), or Option (3) of this section, as follows:



- i. Option (1)--Deenergize and ground. Confirm from the utility owner/operator that the power line has been deenergized and visibly grounded at the worksite.
- ii. Option (2)--20 foot clearance. Ensure that no part of the equipment, load line, or load (including rigging and lifting accessories), gets closer than 20 feet to the power line by implementing the measures specified in paragraph (b) of this section.
- iii. Option (3)--Table A clearance.
 - A. Determine the line's voltage and the minimum approach distance permitted under Table A (see § 1926.1408).
 - B. Determine if any part of the equipment, load line or load (including rigging and lifting accessories), while operating up to the equipment's maximum working radius in the work zone, could get closer than the minimum approach distance of the power line permitted under Table A (see § 1926.1408). If so, then the employer must follow the requirements in paragraph (b) of this section to ensure that no part of the equipment, load line, or load (including rigging and lifting accessories), gets closer to the line than the minimum approach distance.

Hazards that are associated with crane operations include electrocution from overhead power lines and equipment failures because of operator error; faulty or damaged equipment; overloading; support failure such as ground or outrigger collapse; and miscommunication.

To maintain safe and healthful working conditions, employers and employees must ensure that:

1. All requirements, including prohibitions, are met.
2. Manufacturer's instructions are followed.
3. All crane operators have a valid certificate of competency for the specific type of crane that they are operating.
4. Necessary tools, protective equipment, and trainings are provided.
5. The procedures applicable to the operation of the equipment, including rated capacities (load charts), recommended operating speeds, special hazard warnings, instructions, and operator's manual, must be readily available in the cab at all times for use by the operator.



6. Employees comply with all requirements of crane operation and perform tasks safely at all times.

Below is a summary of the regulatory requirements for cranes and derricks used in construction:

A. General requirements for cranes and derricks are given in sections 1610.1–1610.9. Requirements include:

1. Scope applies to power operated equipment when used in construction that can hoist, lower and horizontally move a suspended load. 1610.1
2. Design requirements are given in 1610.2 and 4884.
3. Definitions as per 1610.3.
4. Design, construction, and testing of cranes and derricks with over 2,000 lbs. of hoisting/lifting capacity must meet requirements in 1610.4.
5. Ground conditions, including slope, compaction, and firmness, and all supporting materials, such as blocking, mats, cribbing, marsh buggies, etc., must meet the requirements in 1610.5.
6. Equipment modifications or additions that affect the capacity or safe operation of the equipment are prohibited except where the requirements of subsections as shown in 1610.6 are met.
7. Fall protection is critical in crane operations and must be provided by employers. The fall protection system varies depending on the type of crane being used and the work activity. Requirements for fall protection are given in 1610.7.
8. For cranes with a rated hoisting/lifting capacity of 2,000 lbs. or less, the employer must ensure that all of the requirements in 1610.8 are met.
9. For cranes with a rated hoisting/lifting capacity over 3,000 lbs., the employer must ensure that the cranes, derricks, and accessory gears are not used until there is a verification of current certification as per 1610.9.
10. A copy of the current certification must be available with each crane and derrick or at the project site. 1610.9(a)



11. Proof load tests and examinations of cranes and their accessory gear must be conducted as per 5022, 1610.4(f).

12. Do not operate cranes with wheels or tracks off the ground or working surface at any time unless properly bearing on outriggers or stabilizers. 4994(a)

B. Sections 1611.1 through 1611.5 address all of the safety requirements related to assembly and disassembly operations.

1. When assembling or disassembling equipment (or attachments), the employer must comply with all applicable manufacturer prohibitions and requirements in 1611.1.

2. The general requirements for assembly and disassembly operations, including supervision, review of procedures, crew instructions, etc., are given in 1611.2.

3. Employers/operators must also follow the requirements for dismantling booms and jibs as specified in 1611.3.

4. Employer procedures for assembly/disassembly shall be developed by a qualified person. 1611.4

5. The employer shall follow the power line safety (up to 350 kV) requirements of 1611.5. Employers and employees always need to presume that power lines are energized.

C. Power line safety is regulated under T8 CCR subsections 1612.1 through 1612.4. The requirements vary depending on the voltage of the power line. The following requirements apply:

1. For equipment operations with potential involvement of power lines up to 350 kV, the employer shall follow the power line safety requirements of T8 CCR 1612.1.

2. For power lines over 350 kV, the employer shall follow all of the requirements of 1611.5 and 1612.1. See exceptions.

3. For all energized power lines (all voltages), whenever equipment operations, including load lines or loads, are closer than the minimum approach distance under Table A, the employer shall prohibit these operations. 1612.3

4. Unless the overhead high-voltage power lines are de-energized and visibly grounded, the operation, erection, or handling of tools, machinery, apparatus,



supplies, or materials, or any part thereof over the power lines is prohibited.

1612.3(b)

5. If equipment travels under or near power lines with no load, the employer must establish procedures and criteria, and follow the safety requirements of T8CCR

1612.4.

D. Inspection

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

- i. Control mechanisms for maladjustments interfering with proper operation.
- ii. Control and drive mechanisms for apparent excessive wear of components and contamination by lubricants, water or other foreign matter.
- iii. Air, hydraulic, and other pressurized lines for deterioration or leakage, particularly those which flex in normal operation.
- iv. Hydraulic system for proper fluid level.
- v. Hooks and latches for deformation, cracks, excessive wear, or damage such as from chemicals or heat.
- vi. Wire rope reeving for compliance with the manufacturer's specifications.
- vii. Wire rope, in accordance with § 1926.1413(a).
- viii. Electrical apparatus for malfunctioning, signs of apparent excessive deterioration, dirt or moisture accumulation.
- ix. Tires (when in use) for proper inflation and condition.
- x. Ground conditions around the equipment for proper support, including ground settling under and around outriggers/stabilizers and supporting foundations,



ground water accumulation, or similar conditions. This paragraph does not apply to the inspection of ground conditions for railroad tracks and their underlying support when the railroad tracks are part of the general railroad system of transportation that is regulated pursuant to the Federal Railroad Administration under 49 CFR part 213.

xi. The equipment for level position within the tolerances specified by the equipment manufacturer's recommendations, both before each shift and after each move and setup.

xii. Operator cab windows for significant cracks, breaks, or other deficiencies that would hamper the operator's view.

xiii. Rails, rail stops, rail clamps and supporting surfaces when the equipment has rail traveling. This paragraph does not apply to the inspection of rails, rail stops, rail clamps and supporting surfaces when the railroad tracks are part of the general railroad system of transportation that is regulated pursuant to the Federal Railroad Administration under 49 CFR part 213.

xiv. Safety devices and operational aids for proper operation.

(b) Monthly

i. Each month the equipment is in service it must be inspected by a competent person.

ii. Equipment must not be used until an inspection under this paragraph demonstrates that no corrective action under paragraphs (d)(2) and (3) of this section is required.

iii. Documentation.

a) The following information must be documented and maintained by the employer that conducts the inspection:

i. The items checked and the results of the inspection.

ii. The name and signature of the person who conducted the inspection and the date.

b) This document must be retained for a minimum of three months.



E. Requirements for the selection and installation of wire ropes are given in 1614. Selection and installation of original and replacement wire rope shall be in accordance with the wire rope manufacturer, the equipment manufacturer, or a qualified person.

F. Do not load slings and shackles beyond the rated capacities provided by the manufacturers. Do not use them without affixed and legible identification markings. 5042(a), 5049(g)

Requirements for the safety devices and operational aids are given in sections 1651.1 and 1615.2:

1. Safety devices such as crane level indicator, horn, jib stops, boom stops, etc., are required on all equipment unless otherwise specified. 1615.1
2. Operational aids such as boom hoist limiting device, boom angle, boom length indicator, load weighing device, etc., are required on all equipment unless otherwise specified. 1615.2

Note: Operational aids are classified into Category I and Category II. 1615.2

G. Requirements for the operation of cranes and derricks include the following:

1. The employer shall:
 - a. Follow manufacturer procedures for operation of the equipment including the use of attachments. Where procedures for operation are unavailable, the employer shall comply with 1616.1.

Note: While operating equipment, devices such as cell phones shall not be used for any activities (texting, talking, etc.) other than signaling.

- b. Ensure loads are rigged by a qualified person or by a trainee under the qualified person's direct visual supervision. 1616.1(x)
 - c. If equipment travels with a load, the employer shall ensure that a competent person supervises the operation.
 - d. Ensure operators do not suddenly accelerate or decelerate a moving load. 4999(f)
 - e. Not allow the load, boom, or other parts of the equipment to contact any obstruction during lifting operations. 1616.1(o)



2. Whenever there is a concern as to safety, the operator shall have the authority to stop and refuse to handle loads until a qualified person has determined that safety has been assured. 1616.2

3. Employers must control work areas and protect employees in the hazardous areas. Requirements include:

a. Communication among operators and signal persons shall be followed as per 1616.3 and 4993.1.

b. Where any part of a crane or derrick is within the load radius of another crane or derrick, employers must establish a system to coordinate the operations. 1616.3

c. Prevent employees from entering the hazardous areas by providing employee training, setting up barriers, etc., as per 4993.1.

Before an employee goes to a location in the hazard area that is out of view of the operator, the operator must be informed by the employee. 4993.1(a)(3)(A).

4. Operations shall be conducted and the job controlled in a manner that will avoid exposure of employees to the hazard of overhead loads. Wherever loads must be passed directly over workers, occupied work spaces, or occupied passageways, safety type hooks or equivalent means of preventing the loads from becoming disengaged shall be used. All requirements under 1616.4 shall also be met.

5. Boom free fall is prohibited in each of the circumstances mentioned in 1616.5. Controlled load lowering is required and free fall of the load line hoist is prohibited in each of the circumstances mentioned in 1616.5(d).

6. The use of equipment to hoist employees is prohibited except where the employer demonstrates that the erection, use, and dismantling of conventional means of reaching the work area would be more hazardous or is not possible because of the project's structural design or worksite conditions. 1616.6(a)

7. Hoisting of personnel using cranes is permissible only when all of the requirements of 1616.6 are met.

Note: The requirements of 1616.6 are supplemental and apply when one or more employees are hoisted.

8. Supplemental requirements for using multiple crane/derrick lifts are provided in 1616.7. Before beginning a crane/derrick operation in which multiple cranes/derricks



will be supporting the load, the operation shall be planned as per 1616.7(a) and directed by a qualified person.

9. Swing radius hazards.

(a) The requirements in paragraph (a)(2) of this section apply where there are accessible areas in which the equipment's rotating superstructure (whether permanently or temporarily mounted) poses a reasonably foreseeable risk of:

- i. Striking and injuring an employee; or
- ii. Pinching/crushing an employee against another part of the equipment or another object.

(b) To prevent employees from entering these hazard areas, the employer must:













- i. Train each employee assigned to work on or near the equipment ("authorized personnel") in how to recognize struck-by and pinch/crush hazard areas posed by the rotating superstructure.
- ii. Erect and maintain control lines, warning lines, railings or similar barriers to mark the boundaries of the hazard areas. Exception: When the employer can demonstrate that it is neither feasible to erect such barriers on the ground nor on the equipment, the hazard areas must be clearly marked by a combination of warning signs (such as "Danger--Swing/Crush Zone") and high visibility markings on the equipment that identify the hazard areas. In addition, the employer must train each employee to understand what these markings signify

H. The general requirements for using signals during the operation of cranes and derricks are given in sections 1617.1 to 1617.3 and include the following:

1. A signal person shall be provided in each of the situations given under 1617.1. A signal person is used when the operator's view is obstructed. Only qualified persons shall be permitted to give signals except for a stop signal. Signals to operators shall be by hand, voice, or audible method and as per 1617.1. Some of the recommended hand signals are shown in Illustration 4 on the next page.
2. The devices for transmitting signals shall be tested on site before start of operations and the devices/signaling shall meet requirements in 1617.2.
3. Follow the additional requirements in 1617.3 for voice signals.

Note: Employees shall not text or talk unless it is for signaling purposes.

Some of the Recommended Hand Signals

 <p>Extend Telescoping Boom—With hands to the front at waist level, thumbs point outward with other fingers crossed.</p>	 <p>Hoist—With upper arm extended to the side, forearm and index finger pointing straight up, hand and finger make small circles.</p>	 <p>Emergency Stop—With both arms extended horizontally to the side, palms down, arms are swung back and forth.</p>
 <p>Stop—With arm extended to the side, palm down, arm is swung back and forth</p>	 <p>Swing—With arm extended horizontally, index finger points in direction that boom is to swing.</p>	 <p>Raise Boom—With arm extended horizontally to the side, thumb points up with other fingers closed.</p>
 <p>Lower Boom—With arm extended horizontally to the side, thumb points down with other fingers closed.</p>	 <p>Dog Everything—Hands held together at waist level.</p>	 <p>Lower—With arm and index finger pointing down, hand and finger make small circles.</p>
 <p>Raise the Boom and Lower the Load—With arm extended horizontally to the side and thumb pointing up, fingers open and close while load movement is desired.</p>	 <p>Retract Telescoping Boom—With hands to the front at waist level, thumbs point at each other with other fingers closed.</p>	 <p>Travel/Tower Travel—With all fingers pointing up, arm is extended horizontally out and back to make a pushing motion in the direction of travel.</p>

Note: For the complete list of recommended hand signals, see GISOs 5001, Plate I.

4. During operations requiring signals, the ability to transmit signals between the operator and signal person must be maintained. If that ability is interrupted at any



time, the operator must safely stop operations requiring signals until it is reestablished and a proper signal is given and understood.

5. Only one person may give signals to a crane/derrick at a time, except in circumstances covered by paragraph of this section.

6. Anyone who becomes aware of a safety problem must alert the operator or signal person by giving the stop or emergency stop signal. (Note: § 1926.1417(y) requires the operator to obey a stop or emergency stop signal).

I. The requirements for operator qualification, training and certification, and licensing are given in sections 1618.1 through 1618.4. They include the following:

1. Operator qualifications/certification/in-training must comply with 1618.1.
2. Make sure that each signal person meets the qualification requirements in 1618.2 prior to giving any signals.
3. Maintenance, inspection, and repair personnel are permitted to operate the equipment only when all of the requirements of 1618.3 are met.
4. The employer shall provide training to all operators, signal persons, spotters, competent/qualified persons, and operators-in-training on their specific jobs as per 1618.4.
5. Applicant must pass a physical examination, a substance abuse test, and written and practical tests in order to obtain an operator license.

J. T8 CCR sections 1619.1 through 1619.5 have supplemental requirements for certain types of cranes and derricks. Supplemental requirements include the following:

1. Section 1619.1 contains supplemental requirements for erecting, climbing, operating, dismantling, and all other operations and devices used in regard to tower cranes.
2. The supplemental requirements for derricks, whether temporarily or permanently mounted, are given in 1619.2.



3. Section 1619.3 contains supplemental requirements for floating cranes/derricks and land cranes/derricks on barges, pontoons, vessels, or other means of flotation. See 1619.3 for complete requirements.

4. Overhead and gantry cranes, whether permanently or temporarily installed, are subject to the requirements of 1619.4.

5. The supplemental requirements for dedicated pile drivers are given in 1619.5.

K. Side-boom cranes mounted on wheel or crawler tractors shall meet all of the requirements of 1694(d).

L. A crane/derrick used to get divers in/out of water shall not be used for any other purpose until all divers are back on board. 6060

M. There shall be no sudden acceleration or deceleration of the moving load.

N. Inadvertent contact with obstructions shall be prevented. The load, boom, or other parts of the equipment shall not contact any obstruction in a way that could cause falling material or damage to the boom.



DEB Construction, LLC

Traffic Control, Stop Work Authority, Fit for Duty, & Fatigue Management

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities involving Traffic Control, Stop Work Authority, Fit for Duty, & Fatigue Management.

SCOPE

Only employees who have been trained in the requirements of Traffic Control, Stop Work Authority, Fit for Duty, & Fatigue Management can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of Traffic Control, Stop Work Authority, Fit for Duty, & Fatigue Management hazards to personnel and the public.



A. Traffic Control:

1. Where a hazard exists to employees because of traffic or haulage conditions at work sites that encroach upon public streets or highways, a system of traffic controls in conformance with the "California Manual on Uniform Traffic Control Devices for Streets and Highways, January 13, 2012," which is herein incorporated by reference and referred to as the "Manual", published by the State Department of Transportation, shall be required so as to abate the hazard.

NOTE: Additional means of traffic control, such as continuous patrol, detours, barricades, or other techniques for the safety of employees may be employed.

2. Specifications for the size and design of signs, lights, and devices used for traffic control shall be as described in the "Manual", pursuant to the provisions of California Vehicle Code Section 21400, which is incorporated by this reference.

3. Employees (on foot) exposed to the hazard of vehicular traffic shall wear warning garments such as high visibility work vests, jackets, or shirts manufactured in accordance with the requirements of the American National Standards Institute (ANSI)/International Safety Equipment Association (ISEA) 107-2004, High Visibility Safety Apparel and Headwear.

4. During hours of darkness, warning garments shall be retroreflective and shall be manufactured in accordance with the requirements of the American National Standards Institute (ANSI)/International Safety Equipment Association (ISEA) 107-2004, High Visibility Safety Apparel and Headwear. The retroreflective material shall be visible at a minimum of 1,000 feet. White outer garments with retroreflective material that meets the above requirements may be worn during hours of darkness but not during snow or fog conditions, in lieu of colored vests, jackets and/or shirts.

5. Pedestrians near or around work site locations have the right-of-way and all applicable safety considerations shall be in place.

6. Flagger

(a) When work activity occurs on or adjacent to a surface being used by the public, DEB is responsible for providing flagger(s) to direct traffic.

(b) A flagger or flaggers shall be utilized at locations on a construction site where barricades and warning signs cannot control the moving traffic. Unless this section provides differently, the number of flaggers required and matters regarding the



deployment of the flagger or flaggers shall be according to the California Manual on Uniform Traffic Control Devices for Streets and Highways.

(c) When a flagger or flaggers are required, they shall be placed in relation to any equipment or operation to give effective warning.

(e) Flaggers shall be trained in the proper fundamentals of flagging moving traffic before being assigned as flaggers. Signaling directions used by flaggers shall conform to the program. The training and instructions shall be based on the program and work site conditions and also include the following:

- (1) flagger equipment which must be used,
- (2) layout of the work zone and flagging station,
- (3) methods to signal traffic to stop, proceed or slow down,
- (4) methods of one-way traffic control,
- (5) trainee demonstration of proper flagging methodology and operations,
- (6) emergency vehicles traveling through the work zone,
- (7) handling emergency situations,
- (8) methods of dealing with hostile drivers,
- (9) flagging procedures when a single flagger is used (when applicable),

(f) Control Measures.

(1) Employees struck by vehicles or mobile equipment account for many work zone injuries or fatalities. Work zones should be marked by traffic control devices such as: signals, message boards, cones, barrels, barricades and delineator posts.

(g) Hand-signaling devices

(1) Hand-signaling devices such as Stop/Slow paddles or red flags are provided to flaggers.

B. Stop Work Authority:

1. Training



(a) Employees will receive Stop Work Authority training before initial assignment.

(b) The training must be documented including the employee name, the dates of training and subject.

2. All employees have the authority and obligation to stop any task or operation where concerns or questions regarding the control of program risk exist.

(a) No work will resume until all stop work issues and concerns have been adequately addressed.

(b) Any form of retribution or intimidation directed at any individual or company for exercising their right to issue a stop work authority will not be tolerated.

3. Roles & Responsibilities

(a) Employees are responsible to initiate a Stop Work Intervention when warranted

(b) management is responsible to create a culture where Stop Work Authority is exercised freely.

4. 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.

5. Documentation

(a) All Stop Work Interventions shall be documented for lessons learned and corrective measures to be put into place.

6. Reports

(a) Shall be reviewed by a supervisor or manager in order to measure participation, determine quality of interventions and follow-up, trend common issues, identify opportunities for improvement, and facilitate sharing of learnings.

7. Follow-up

(a) It is desired that all Stop Work Intervention that the identified safety concern(s) have been addressed to the satisfaction of all involved persons prior to the resumption of work. If they cannot be resolved in a timely manner, then additional investigation and corrective actions may be required to identify and address root causes.



C. Fit-For-Duty:

1. Pre-employment physicals are included in the hiring process, and also when changing into certain job functions and different environments.
2. Drug & alcohol screening will be accomplished under the following circumstances:
 - (a) pre-employment
 - (b) post-accident
 - (c) random as prescribed by employer
3. Prescriptions
 - (a) Employees must report all medications they are taking. Over-the-counter medications such as allergy or cold and flu medications could also impair one's ability to perform safely and must also be reported to their supervisor.
4. An employee's activities and behaviors are continually be monitored to determine if they should be removed from the work site.
5. Notifying Supervisors
 - (a) Employees are responsible for ensuring they are physically and mentally fit to perform their job functions safely.
 - (b) If an employee is not able to perform their duties safely due to their physical or mental state, they are responsible for notifying their supervisor.
 - (c) Employees must take responsibility for their own safety as well as not report to work in a condition as to endanger the safety of their fellow workers.

D. Fatigue Management:

1. Training
 - (a) Initial and annual training are provided on how to recognize fatigue, how to control fatigue through appropriate work and personal habits, and reporting of fatigue to supervision.
2. Limiting work hours



(a) DEB will set work hour limitations and will control job rotation schedules to control fatigue, allow for sufficient sleep, and increase mental fitness in an effort to control employee turnover and absenteeism.

2. Ergonomic Equipment

(a) If requested, Ergonomic equipment will be used to improve workstation conditions such as anti-fatigue mats for standing, lift assist devices for repetitive lifting, proper lighting and control of temperature, and other ergonomic devices as deemed appropriate.

3. Task Analysis

(a) Work tasks to control fatigue must be analyzed and evaluated periodically.

4. Breaks

(a) Along with California break requirements, Chairs will be provided for workers to sit periodically, and will provide periodic rest breaks for personnel.

5. Reporting

(a) Employees who are in roles and have responsibilities in safety critical positions are required to report fatigue/tiredness and lack of mental acuity to supervision; as well as supervisory personnel to make safety critical decisions and take appropriate actions to prevent loss.

6. Over-the-Counter/Prescription Drugs

(a) Employees must not chronically use over-the-counter or prescription drugs to increase mental alertness.

(b) Employees should be discouraged from taking any substance known to increase fatigue in that employee, including fatigue that sets in after the effects of the drug wear off.



DEB Construction, LLC

Spill Prevention/Response, Preventative Maintenance, & Risk Assessment

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities involving Spill Prevention/Response, Preventative Maintenance, & Risk Assessment.

SCOPE

Only employees who have been trained in the requirements of Spill Prevention/Response, Preventative Maintenance, & Risk Assessment can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of Spill Prevention/Response, Preventative Maintenance, & Risk Assessment hazards to personnel and the public.



A. Spill Prevention & Response:

1. Storage

(a) Chemical substances are stored in proper containers to minimize the potential for a spill.

(b) Whenever possible, chemicals shall be kept in closed containers and stored so they are not exposed to stormwater.

2. Spill Kits

(a) A proper spill kit will contain the appropriate supplies for materials that may be spilled.

(b) Supplies must be easily accessible when required, and considerations must be made for both the type and quantity of materials.

3. Training

(a) Employees will be instructed on the proper response procedures for spilled materials.

(b) The training will include:

1. materials available for use
2. proper waste disposal
3. communication procedures

4. Reporting

(a) Environmental spills may will need to be reported to environmental authorities.

1. Reporting procedures will be based on type and quantity of materials spilled.

B. Preventative Maintenance:

1. Inventory

(a) An inventory of the company's machinery/equipment inventory is established and maintained by Office Manager.

(b) When new machinery or equipment is acquired, it is added to the inventory.



2. Inspection Schedule

(a) A preventative maintenance schedule is established by the Office Manager.

(b) Office Manager will use manufacturer requirements and industry standards to create cadence of all new equipment as it is cataloged.

3. Records

(a) Preventative maintenance performed on machinery/equipment are documented and retained for the life of the machinery or equipment.

4. Removal of Equipment

(a) defects observed and documented in the machinery or equipment shall be reported to supervisors.

(b) Once repairs on done to manufacturer standards, they are inspected for use.

(C) If repairs are not possible, then replacement and or disposal of equipment is coordinated with office manager.

C. Risk Assessment:

One of the "root causes" of workplace injuries, illnesses, and incidents is the failure to identify or recognize hazards that are present, or that could have been anticipated. A critical element of any effective safety and health program is a proactive, ongoing process to identify and assess such hazards.

1. To identify and assess hazards, employers and workers:

(a) Collect and review information about the hazards present or likely to be present in the workplace.

(b) Conduct initial and periodic workplace inspections of the workplace to identify new or recurring hazards.

(c) Investigate injuries, illnesses, incidents, and close calls/near misses to determine the underlying hazards, their causes, and safety and health program shortcomings.

(d) Group similar incidents and identify trends in injuries, illnesses, and hazards reported.



(e) Consider hazards associated with emergency or nonroutine situations.

(f) Determine the severity and likelihood of incidents that could result for each hazard identified, and use this information to prioritize corrective actions.

Some hazards, such as housekeeping and tripping hazards, can and should be fixed as they are found. Fixing hazards on the spot emphasizes the importance of safety and health and takes advantage of a safety leadership opportunity.

Risk assessments should be performed before work begins to formally identify and assess hazards. A Job Safety Analysis (JSA), or Job Hazard Analysis (JHA), should be developed for all routine tasks. Formal workplace inspections should be performed on a regular basis. Risk assessments and JSAs/JHAs should be updated whenever changes occur to processes, equipment, and/or facilities.

Employees must be actively involved in the risk identification process. If subcontractors are performing work at the location, they should be included. Identified hazards and risks must be reviewed with all affected employees.

2. Hierarchy of controls

(a) When a hazard is identified, first attempt to eliminate the hazard.

(b) If elimination is not practicable, use engineering controls.

(c) If engineering controls are not practicable, implement administrative controls.

(d) If the hazard cannot be adequately controlled using engineering and/or administrative controls, employees must use Personal Protective Equipment.

(e) A combination of engineering controls, administrative controls, and Personal Protective Equipment is usually best.

Action item 1: Collect existing information about workplace hazards

Action item 2: Inspect the workplace for safety hazards

Action item 3: Identify health hazards

Action item 4: Conduct incident investigations

Action item 5: Identify hazards associated with emergency and nonroutine situations

Action item 6: Characterize the nature of identified hazards, identify interim control measures, and prioritize the hazards for control



3. Collect existing information about workplace hazards

Information on workplace hazards may already be available to employers and workers, from both internal and external sources.

(a) How to accomplish it

1. Collect, organize, and review information with workers to determine what types of hazards may be present and which workers may be exposed or potentially exposed. Information available in the workplace may include:

- Equipment and machinery operating manuals.
- Safety Data Sheets (SDS) provided by chemical manufacturers.
- Self-inspection reports and inspection reports from insurance carriers, government agencies, and consultants.
- Records of previous injuries and illnesses, such as OSHA 300 and 301 logs and reports of incident investigations.
- Workers' compensation records and reports.
- Patterns of frequently-occurring injuries and illnesses.
- Exposure monitoring results, industrial hygiene assessments, and medical records (appropriately redacted to ensure patient/worker privacy).
- Existing safety and health programs (lockout/tagout, confined spaces, process safety management, personal protective equipment, etc.).
- Input from workers, including surveys or minutes from safety and health committee meetings.
- Results of job hazard analyses, also known as job safety analyses.

4. Inspect the workplace for safety hazards

Hazards can be introduced over time as workstations and processes change, equipment or tools become worn, maintenance is neglected, or housekeeping practices decline. Setting aside time to regularly inspect the workplace for hazards can help identify shortcomings so that they can be addressed before an incident occurs.

(a) How to accomplish it

1. Conduct regular inspections of all operations, equipment, work areas and facilities. Have workers participate on the inspection team and talk to them about hazards that they see or report.



2. Be sure to document inspections so you can later verify that hazardous conditions are corrected. Take photos or video of problem areas to facilitate later discussion and brainstorming about how to control them, and for use as learning aids.
3. Include all areas and activities in these inspections, such as storage and warehousing, facility and equipment maintenance, purchasing and office functions, and the activities of on-site contractors, subcontractors, and temporary employees.
4. Regularly inspect both plant vehicles (e.g., forklifts, powered industrial trucks) and transportation vehicles (e.g., cars, trucks).
5. Use checklists that highlight things to look for. Typical hazards fall into several major categories, such as those listed below; each workplace will have its own list:
 - (a) General housekeeping
 - (b) Slip, trip, and fall hazards
 - (c) Electrical hazards
 - (d) Equipment operation
 - (e) Equipment maintenance
 - (f) Fire protection
 - (g) Work organization and process flow (including staffing and scheduling)
 - (h) Work practices
 - (i) Workplace violence
 - (j) Ergonomic problems
 - (k) Lack of emergency procedures
6. Before changing operations, workstations, or workflow; making major organizational changes; or introducing new equipment, materials, or processes, seek the input of workers and evaluate the planned changes for potential hazards and related risks.



Note: Many hazards can be identified using common knowledge and available tools. For example, you can easily identify and correct hazards associated with broken stair rails and frayed electrical cords. Workers can be a very useful internal resource, especially if they are trained in how to identify and assess risks.

5. Identify health hazards

Identifying workers' exposure to health hazards is typically more complex than identifying physical safety hazards. For example, gases and vapors may be invisible, often have no odor, and may not have an immediately noticeable harmful health effect. Health hazards include chemical hazards (solvents, adhesives, paints, toxic dusts, etc.), physical hazards (noise, radiation, heat, etc.), biological hazards (infectious diseases), and ergonomic risk factors (heavy lifting, repetitive motions, vibration). Reviewing workers' medical records (appropriately redacted to ensure patient/worker privacy) can be useful in identifying health hazards associated with workplace exposures.

(a) How to accomplish it

1. Identify chemical hazards –review SDS and product labels to identify chemicals in your workplace that have low exposure limits, are highly volatile, or are used in large quantities or in unventilated spaces. Identify activities that may result in skin exposure to chemicals.
2. Identify physical hazards –identify any exposures to excessive noise (areas where you must raise your voice to be heard by others), elevated heat (indoor and outdoor), or sources of radiation (radioactive materials, X-rays, or radiofrequency radiation).
3. Identify biological hazards –determine whether workers may be exposed to sources of infectious diseases, molds, toxic or poisonous plants, or animal materials (fur or scat) capable of causing allergic reactions or occupational asthma.
4. Identify ergonomic risk factors –examine work activities that require heavy lifting, work above shoulder height, repetitive motions, or tasks with significant vibration.
5. Conduct quantitative exposure assessments –when possible, using air sampling or direct reading instruments.
6. Review medical records –to identify cases of musculoskeletal injuries, skin irritation or dermatitis, hearing loss, or lung disease that may be related to workplace exposures.



Note: Identifying and assessing health hazards may require specialized knowledge. Small businesses can obtain free and confidential occupational safety and health advice services, including help identifying and assessing workplace hazards, through OSHA's On-site Consultation Program.

6. Conduct incident investigations

Workplace incidents –including injuries, illnesses, close calls/near misses, and reports of other concerns– provide a clear indication of where hazards exist. By thoroughly investigating incidents and reports, you will identify hazards that are likely to cause future harm. The purpose of an investigation must always be to identify the root causes (and there is often more than one) of the incident or concern, in order to prevent future occurrences.

(a) How to accomplish it

1. Develop a clear plan and procedure for conducting incident investigations, so that an investigation can begin immediately when an incident occurs. The plan should cover items such as:

- Who will be involved
- Lines of communication
- Materials, equipment, and supplies needed
- Reporting forms and templates

2. Train investigative teams on incident investigation techniques, emphasizing objectivity and open-mindedness throughout the investigation process.

3. Conduct investigations with a trained team that includes representatives of both management and workers.

4. Investigate close calls/near misses.

5. Identify and analyze root causes to address underlying program shortcomings that allowed the incidents to happen.

6. Communicate the results of the investigation to managers, supervisors, and workers to prevent recurrence.

Effective incident investigations do not stop at identifying a single factor that triggered an incident. They ask the questions "Why?" and "What led to the failure?" For example, if a



piece of equipment fails, a good investigation asks: "Why did it fail?" "Was it maintained properly?" "Was it beyond its service life?" and "How could this failure have been prevented?" Similarly, a good incident investigation does not stop when it concludes that a worker made an error. It asks such questions as: "Was the worker provided with appropriate tools and time to do the work?" "Was the worker adequately trained?" and "Was the worker properly supervised?"

7. Identify hazards associated with emergency and nonroutine situations

Emergencies present hazards that need to be recognized and understood. Nonroutine or infrequent tasks, including maintenance and startup/shutdown activities, also present potential hazards. Plans and procedures need to be developed for responding appropriately and safely to hazards associated with foreseeable emergency scenarios and nonroutine situations.

(a) How to accomplish it

1. Identify foreseeable emergency scenarios and nonroutine tasks, taking into account the types of material and equipment in use and the location within the facility. Scenarios such as the following may be foreseeable:

- Fires and explosions
- Chemical releases
- Hazardous material spills
- Startups after planned or unplanned equipment shutdowns
- Nonroutine tasks, such as infrequently performed maintenance activities
- Structural collapse
- Disease outbreaks
- Weather emergencies and natural disasters
- Medical emergencies
- Workplace violence

8. Characterize the nature of identified hazards, identify interim control measures, and prioritize the hazards for control

The next step is to assess and understand the hazards identified and the types of incidents that could result from worker exposure to those hazards. This information can be used to develop interim controls and to prioritize hazards for permanent control.

(a) How to accomplish it



1. Evaluate each hazard by considering the severity of potential outcomes, the likelihood that an event or exposure will occur, and the number of workers who might be exposed.
2. Use interim control measures to protect workers until more permanent solutions can be implemented.
3. Prioritize the hazards so that those presenting the greatest risk are addressed first. Note, however, that employers have an ongoing obligation to control all serious recognized hazards and to protect workers.

Note: "Risk" is the product of hazard and exposure. Thus, risk can be reduced by controlling or eliminating the hazard or by reducing workers' exposure to hazards. An assessment of risk helps employers understand hazards in the context of their own workplace and prioritize hazards for permanent control.

9. Risk Ranking

- (a) DEB has a system for classifying and ranking hazards according to risk.
- (b) Risk are determined by:
 1. Analyzing the probability of the hazard causing harm.
 2. the frequency the hazard is encountered
 3. Potential consequences of impact with the hazard.
- (c) Risk matrix will be developed to assist employees with risk assessment as risks presents itself.

10. Training

- (a) All employees should be trained on the hazard identification and risk assessment process prior to arrival on job site.



DEB Construction, LLC

Ground Fault Protection/ GFCI – US Safety Program

INTRODUCTION

Thousands of workers are injured every year due to improper grounding of portable powered tools. Serious injury or death can be the result of electrocution. OSHA estimates that most of these accidents can be prevented if proper safety precautions at job sites are initiated. This poses a serious problem for exposed workers and their employer. The Electrical Safety Standards established uniform requirements to ensure that the hazards of using tools and electrical appliances at job sites are evaluated, safety procedures implemented, and that the proper hazard information is transmitted to all affected workers.

GENERAL

DEB Construction, LLC will ensure that tool hazards are evaluated. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying tool selection and use deficiencies, evaluating the associated potential electrical hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

RESPONSIBILITY

The company Human Resources Department is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Human Resources Department will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions.

DEB Construction, LLC has expressly authorized Human Resources, Project Managers and Superintendents to halt any operation of the company where there is danger of work-related injuries and illnesses.

Phone: (714) 632-6680 Fax: (714) 632-5721



Contents

1. Written Program
2. General Requirements
3. Power Tool and Accessories Selection, Evaluation and Condition
4. Power Tool Precautions
5. Methods of Guarding
6. Initial Training
7. Refresher Training



1) Written Program

DEB Construction, LLC will review and evaluate this standard practice instruction on an annual basis, or when operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety, health, that is endorsed and advocated by the highest level of management within this Company and that outlines our goals and plans. This written program will be communicated to all required personnel. It is designed to establish clear goals and objectives.

2) General Requirements

DEB Construction, LLC shall be responsible for the safe condition of electrical tools and equipment used by its employees, including tools and equipment which may be furnished by employees. DEB Construction, LLC will develop assured grounding operational procedures through the use of this document. After tool and equipment selection and evaluation, equipment will be used and maintained in a safe condition. Superintendents and Project Managers will ensure that the equipment utilized at each job site is maintained in a safe condition.



3) Training

The training requirements contained in this section apply to employees who face a risk of electric shock that is not reduced to a safe level by the electrical installation requirements of 1910.303 through 1910.308.

Note: Employees in occupations listed in Table S-4 face such a risk and are required to be trained. Other employees who also may reasonably be expected to face comparable risk of injury due to electric shock or other electrical hazards must also be trained.

Additional requirements for unqualified persons. Employees who are covered this section but who are not qualified persons shall also be trained in and familiar with any electrically related safety practices not specifically addressed by Cal/OSHA 1910.331 through 1910.335 but which are necessary for their safety.

Additional requirements for qualified persons. Qualified persons (i.e. those permitted to work on or near exposed energized parts) shall, at a minimum, be trained in and familiar with the following:

- a) The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment.
- b) The skills and techniques necessary to determine the nominal voltage of exposed live parts, and
- c) The clearance distances specified in 1910.333(c) and the corresponding voltages to which the qualified person will be exposed.

4) Deenergized Parts

"Deenergized parts." Live parts to which an employee may be exposed shall be deenergized before the employee works on or near them, unless the employer can demonstrate that deenergizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations. Live parts that operate at less than 50 volts to ground need not be deenergized if there will be no increased exposure to electrical burns or to explosion due to electric arcs.

Note 1: Examples of increased or additional hazards include interruption of life support equipment, deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area.

Note 2: Examples of work that may be performed on or near energized circuit parts because of infeasibility due to equipment design or operational limitations include testing of electric circuits that can only be performed with the circuit energized and work on circuits that form an integral part of a continuous industrial process in a chemical plant that would otherwise



need to be completely shut down in order to permit work on one circuit or piece of equipment.

Note 3: Work on or near deenergized parts is covered by paragraph (b) of this section.

Energized parts

If the exposed live parts are not deenergized (i.e., for reasons of increased or additional hazards or infeasibility), other safety-related work practices shall be used to protect employees who may be exposed to the electrical hazards involved. Such work practices shall protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object. The work practices that are used shall be suitable for the conditions under which the work is to be performed and for the voltage level of the exposed electric conductors or circuit parts. Specific work practice requirements are detailed in paragraph (c) of this section.

Working on or near exposed deenergized parts

This paragraph applies to work on exposed deenergized parts or near enough to them to expose the employee to any electrical hazard they present. Conductors and parts of electric equipment that have been deenergized but have not been locked out or tagged in accordance with paragraph (b) of this section shall be treated as energized parts, and paragraph (c) of this section applies to work on or near them.

Conductive articles of jewelry and clothing (such as watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) may not be worn if they might contact exposed energized parts. However, such articles may be worn if they are rendered nonconductive by covering, wrapping, or other insulating means.

Lockout and Tagging

While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, the circuits energizing the parts shall be locked out or tagged or both in accordance with the requirements of this paragraph. The requirements shall be followed in the order in which they are presented (i.e., paragraph (b)(2)(i) first, then paragraph (b)(2)(ii), etc.).

Note 1: As used in this section, fixed equipment refers to equipment fastened in place or connected by permanent wiring methods.

Note 2: Lockout and tagging procedures that comply with paragraphs (c) through (f) of 1910.147 will also be deemed to comply with paragraph (b)(2) of this section provided that:



- [1] The procedures address the electrical safety hazards covered by this Subpart; and
- [2] The procedures also incorporate the requirements of paragraphs (b)(2)(iii)(D) and (b)(2)(iv)(B) of this section.

Procedures

The employer shall maintain a written copy of the procedures outlined in paragraph (b)(2) and shall make it available for inspection by employees and by the Assistant Secretary of Labor and his or her authorized representatives.

Note: The written procedures may be in the form of a copy of paragraph (b) of this section.
1910.333(b)(2)(ii)

Deenergizing equipment

Safe procedures for deenergizing circuits and equipment shall be determined before circuits or equipment are deenergized.

The circuits and equipment to be worked on shall be disconnected from all electric energy sources. They are treated as energized. Control circuit devices, such as push buttons, selector switches, and interlocks, may not be used as the sole means for deenergizing circuits or equipment. Interlocks for electric equipment may not be used as a substitute for lockout and tagging procedures.

Stored electric energy which might endanger personnel shall be released. Capacitors shall be discharged and high capacitance elements shall be short-circuited and grounded, if the stored electric energy might endanger personnel.

Note: If the capacitors or associated equipment are handled in meeting this requirement, they shall be treated as energized. Stored non-electrical energy in devices that could reenergize electric circuit parts shall be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.

Deenergizing equipment

Safe procedures for deenergizing circuits and equipment shall be determined before circuits or equipment are deenergized.

The circuits and equipment to be worked on shall be disconnected from all electric energy sources. They are treated as energized.

Each tag shall contain a statement prohibiting unauthorized operation of the disconnecting means and removal of the tag.

If a lock cannot be applied, or if the employer can demonstrate that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock, a tag may be used without a lock.



A tag used without a lock, as permitted by paragraph (b)(2)(iii)(C) of this section, shall be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by use of a lock. Examples of additional safety measures include the removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device.

A lock may be placed without a tag only under the following conditions:

- Only one circuit or piece of equipment is deenergized, and
- The lockout period does not extend beyond the work shift, and
- Employees exposed to the hazards associated with reenergizing the circuit or equipment are familiar with this procedure.

Verification of deenergized condition

The requirements of this paragraph shall be met before any circuits or equipment can be considered and worked as deenergized.

A qualified person shall operate the equipment operating controls or otherwise verify that the equipment cannot be restarted.

A qualified person shall use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and shall verify that the circuit elements and equipment parts are deenergized. The test shall also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage backfeed even though specific parts of the circuit have been deenergized and presumed to be safe. If the circuit to be tested is over 600 volts, nominal, the test equipment shall be checked for proper operation immediately after this test.

Reenergizing equipment

These requirements shall be met, in the order given, before circuits or equipment are reenergized, even temporarily.

A qualified person shall conduct tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuits and equipment can be safely energized.

Employees exposed to the hazards associated with reenergizing the circuit or equipment shall be warned to stay clear of circuits and equipment.

Each lock and tag shall be removed by the employee who applied it or under his or her direct supervision. However, if this employee is absent from the workplace, then the lock or tag may be removed by a qualified person designated to perform this task provided that:



The employer ensures that the employee who applied the lock or tag is not available at the workplace, and

The employer ensures that the employee is aware that the lock or tag has been removed before he or she resumes work at that workplace.

There shall be a visual determination that all employees are clear of the circuits and equipment.

Confined or enclosed work spaces

When an employee works in a confined or enclosed space (such as a manhole or vault) that contains exposed energized parts, the employer shall provide, and the employee shall use, protective shields, protective barriers, or insulating materials as necessary to avoid inadvertent contact with these parts. Doors, hinged panels, and the like shall be secured to prevent their swinging into an employee and causing the employee to contact exposed energized parts.

Portable ladders

Portable ladders shall have nonconductive siderails if they are used where the employee or the ladder could contact exposed energized parts.

5) High Voltage

Safe Access. All work locations shall be safely accessible whenever work is to be performed.

(b) Employer's Responsibility. The employer shall furnish such safety devices and safeguards as may be necessary to make the employment or place of employment as free from danger to the safety and health of employees as the nature of the employment reasonably permits. The employer shall examine or test each safety device at such intervals as may be reasonably necessary to ensure that it is in good condition and adequate to perform the function for which it is intended. Any device furnished by the employer found to be unsafe shall be repaired or replaced.

(1) Employees shall be instructed to inspect each safety device, tool or piece of equipment, each time it is used and to use only those in good condition. The employer shall require the use of safety devices and safeguards where applicable.



(2) The training shall establish employee proficiency in the work practices required by this section and shall introduce the procedures necessary for compliance with these Orders.

(3) The employer shall ensure that each employee has demonstrated proficiency in the work practices involved before that employee is to be considered properly instructed/trained commensurate with the requirements of this section and Section 3203 of the General Industry Safety Orders.

(c) Qualified Electrical Workers. Only qualified electrical workers shall work on energized conductors or equipment connected to energized high-voltage systems. Except for replacing fuses, operating switches, or other operations that do not require the employee to contact energized high-voltage conductors or energized parts of equipment, clearing "trouble" or in emergencies involving hazard to life or property, no such employee shall be assigned to work alone. Employees in training, who are qualified by experience and training, shall be permitted to work on energized conductors or equipment connected to high-voltage systems while under the supervision or instruction of a qualified electrical worker.

(d) Observers. During the time work is being done on any exposed conductors or exposed parts of equipment connected to high-voltage systems, a qualified electrical worker, or an employee in training, shall be in close proximity at each work location to:

(1) act primarily as an observer for the purpose of preventing an accident, and

(2) render immediate assistance in the event of an accident. Such observer will not be required in connection with work on overhead trolley distribution circuits not exceeding 1,500 volts D.C. where there is no conductor of opposite polarity less than 4 feet there from, or where such work is performed from suitable tower platforms or other similar structures.

(e) Information Transfer.

(1) Communication between employers. Before work begins, employers shall communicate to each other the following:

(2)



(A) The characteristics of the installation that are related to the safety of the work to be performed and are listed in subsections (f)(1)(A) through (f)(1)(E) of this section.

(B) Conditions that are related to the safety of the work to be performed, that are listed in subsections (f)(1)(F) through (f)(1)(H) of this section.

(C) Information about the design and operation of the installation in order to conduct the assessments required by this section.

(D) Any other information about the design and operation of the installation that is requested and is related to the protection of the employees.

(E) Unique hazardous conditions related to the job.

(F) Any unanticipated hazardous conditions discovered or found while performing work. Employers shall provide this information to the other employer within 2 working days after discovering the hazardous condition.

(G) The employers shall coordinate their work rules and procedures so all employees are protected as required by these Orders.

(2) The employer shall ensure that each of their respective employees are instructed in the hazardous conditions relevant to the employee's work as specified in subsection (e)(1) of this section.

(f) Existing Characteristics and Conditions.

(1) Existing characteristics and conditions of electric lines and equipment that are related to the safety of the work to be performed shall be determined before work on or near the lines or equipment is started. Such characteristics and conditions include, but are not limited to:

(A) Signs are affixed to equipment warning operators to stay away from overhead power lines.

(B) The nominal voltages of lines and equipment,

(C) The maximum switching-transient voltages,

(D) The presence of hazardous induced voltages,

(E) The presence of protective grounds and equipment grounding conductors,



- (F) The locations of circuits and equipment, including electric supply lines, communication lines, and fire protective signaling circuits,
 - (G) The condition of protective grounds and equipment grounding conductors,
 - (H) The condition of poles, and
 - (I) Environmental conditions relating to safety.
 - (g) Job Briefing.
- (1) Before each job.
- (A) In assigning an employee or a group of employees to perform a job, the employer shall provide the employee in charge of the job with all available information that relates to the determination of existing characteristics and conditions required by subsection (f).
 - (B) The employer shall ensure that the employee in charge conducts a job briefing that meets (g)(2) Subjects to be covered, (g)(3) Number of briefing, (g)(4) Extent of the briefing, of this section with the employees involved before they start each job.



(C) Insulating Equipment

(1) Insulating equipment designed for the voltage levels to be encountered shall be provided and the employer shall ensure that they are used by employees as required by this section. This equipment shall meet the electrical and physical requirements contained in the standards for marking, inspection, performance and testing.

(2) Whenever rubber insulating gloves are used, they shall be protected by outer canvas or leather gloves.

(3) Insulating equipment fabricated of material other than rubber shall provide electrical and mechanical protection at least equal to that of rubber equipment.

(4) The employer is responsible for the periodic visual and electrical re-testing of all insulating gloves, sleeves and blankets.

(5) Marking of insulated equipment and/or PPE with the latest test date or the next required testing date.
Defective insulated equipment is removed from service.

(2) Subjects to be covered. The briefing shall cover at least the following subjects: hazards associated with the job, work procedures involved, special precautions, energy-source controls, and personal protective equipment requirements.

(3) Number of briefings.

(A) If the work or operations to be performed during the work day or shift are repetitive and similar, at least one job briefing shall be conducted before the start of the first job of each day or shift.

(B) Additional job briefings shall be held if significant changes, which might affect the safety of the employees, occur during the course of the work.

(4) Extent of briefing.

(A) A brief discussion is satisfactory if the work involved is routine and if the employees, by virtue of training and experience, can reasonably be expected to recognize and avoid the hazards involved in the job.

(B) A more extensive discussion shall be conducted:

1. If the work is complicated or particularly hazardous, or



2. If the employee cannot be expected to recognize and avoid the hazards involved in the job.

(5) Minimum Approach Distance

(a) The employer shall establish minimum approach distances using one of the following methods:

(1) Distances no less than computed by Table 2940.2-1 for AC Systems or Table 2940.2-6 for DC Systems using maximum anticipated per-unit transient overvoltage determined by an engineering analysis.

(2) No later than October 1, 2018 for voltages over 72.5 kilovolts, the employer shall determine the maximum anticipated per-unit transient overvoltage, phase-to-ground, through an engineering analysis.

6) Low Voltage

(a) These Low-Voltage Electrical Safety Orders apply to all electrical installations and electrical equipment operating or intended to operate on systems of 600 volts, nominal, or less and to all work performed directly on or in proximity to such electrical installations, equipment or systems in all places of employment in the State of California as defined in Labor Code Section 6303.

Barriers or barricades are used at access points.

(1) These Orders do not apply to:

(A) Installations or conductors and equipment in ships, watercraft, railway rolling stock, aircraft, or automotive vehicles other than mobile homes and recreational vehicles.

(B) Installations of conductors and equipment in vehicles, operating at less than 50 volts or to their ignition system, unless otherwise specified.

(C) Installations of conductors, equipment, and associated enclosures subject to the jurisdiction of the California Public Utilities Commission, that are owned, operated and maintained by an electric, communication or electric railway utility.

(2) Only qualified persons shall work on electrical equipment or systems.



(3) Only qualified persons shall be permitted to perform any function in proximity to energized overhead conductors unless means to prevent accidental contact have been provided in accordance with Articles 3 and 4 of these orders.

(4) Work shall not be performed on exposed energized parts of equipment or systems until the following conditions are met:

- (1) Responsible supervision has determined that the work is to be performed while the equipment or systems are energized.
- (2) Involved personnel have received instructions on the work techniques and hazards involved in working on energized equipment.
- (3) Suitable personal protective equipment and safeguards (i.e., approved insulated gloves or insulated tools) are provided and used.

(5) After the required work on an energized system or equipment has been completed, an authorized person shall be responsible for:

- (1) Removing from the work area any temporary personnel protective equipment, and
- (2) Reinstalling all permanent barriers or covers.

7) Power Tool and Accessories Selection, Evaluation and Condition

The greatest hazards posed by power tools usually results from misuse and/or improper maintenance. Tool selection sometimes is not considered a priority when arrangements are made to begin work. Daily inspections must take place including daily cord inspections. All employees will consider the following when selecting tools:

- Is the tool correct for the type of work to be performed?
- Are grounding methods sufficient when working in wet conditions?
- Is the grounding terminal present on the plug?
- Is the polarity of connections correct? No grounded conductor can be attached to any terminal or lead which results in a reversed designated polarity.
- Are grounding terminals or grounding-type devices on receptacles, cord connectors, or attachment plugs used for the intended purpose?
- Are grounding terminals or grounding-type devices on receptacles, cord connectors, or attachment plugs defeated in any way?
- Are all receptacles and attachment caps or plugs tested for correct attachment of the equipment grounding conductor? The equipment grounding conductor must be connected to its proper terminal.
- Are grounding terminals or grounding-type devices on receptacles, cord connectors, or attachment plugs defeated in any way?



- Are all 12 volt, single-phase 15 and 20 ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure, equipped with approved ground-fault circuit interrupters for personnel protection?
- Are conductors used as a grounded conductor identifiable and distinguishable from all other conductors?
- Is each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, visually inspected daily before use for external defects, such as deformed or missing pins or insulation damage, and for indications of possible internal damage? (Exception - cord sets and receptacles which are properly fixed and not exposed to damage).
- Is equipment found damaged or defective removed from service until repaired or replaced?
- Are guards installed properly and in good condition?
- Are all required tests performed?
 - Before first use;
 - Before equipment is returned to service following repairs;
 - Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over; and;
 - At intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage must be tested at intervals not to exceed 6 months.
 - The employer shall not make available or permit the use by employees of any equipment which has not met the requirements
- Are all required tests documented, maintained and include the following?
 - Identity of all equipment having passed the test?
 - The last date tested or the testing interval?
 - Is the test documentation maintained until replaced by a more current record?
 - Does the tool create sparks or heat? Has this been considered when working around flammable substances?
 - Are cutting tools sharp? Dull tools are more hazardous than sharp ones.
 - Is the tool used on the proper working surface? Tools used on dirty or wet working surfaces can create a multitude of hazards.
 - Are tools stored properly when not being used? Saw blades, and like sharp tools should be stored so that sharp edges are directed away from aisles and coworkers.

8) Power Tool Precautions

Power tools can be hazardous when improperly used; DEB Construction, LLC uses several types. The following precautions will be taken by employees of DEB Construction, LLC to prevent injury.



- Power tools will always be operated within their design limitations.
- Eye protection, gloves and safety footwear are recommended during operation.
- Tools will be stored in an appropriate dry location when not in use.
- Tool work will only be conducted in well illuminated locations.
- Tools will not be carried by the cord or hose.
- Cords or hoses will not be yanked to disconnect it from the receptacle.
- Cords and hoses will be kept away from heat, oils, and sharp edges or any other source that could result in damage. Cords will be inspected daily for damages.
- Ground-fault circuit interrupters. All 120-volt, single-phase 15- and 20-ampere receptacle outlets are temporary wiring on construction sites, which are not a part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground-fault circuit interrupters for personnel protection. Receptacles on a two-wire, single-phase portable or vehicle-mounted generator rated not more than 5kW, where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces, need not be protected with ground-fault circuit interrupters.
- Tool will be disconnected when not in use, before servicing, and when changing accessories such as blades, bits and cutters.
- When servicing energized electrical equipment it must be non-conductive.
- Observers will be kept at a safe distance at all times from the work area.
- Work will be secured with clamps or a vice where possible to free both hands to operate tools.
- To prevent accidental starting, employees should be continually aware not to hold the start button while carrying a plugged-in tool.
- Tools will be maintained in a clean manner and properly maintained in accordance with the manufacturer's guidelines.
- Ensure that proper shoes are worn and that the work area is kept clean to maintain proper footing and good balance.
- Ensure that proper apparel is worn. Loose clothing, ties, or jewelry can become caught in moving parts.
- Where lack of illumination or an obstruction precludes observation of the work to be performed, employees may not perform tasks near exposed energized parts. Employees may not reach blindly into areas which may contain energized parts.



9) Ground-fault protection

The employer shall use either ground fault circuit interrupters as specified in paragraph (b)(1)(ii) of this section or an assured equipment grounding conductor program as specified in paragraph (b)(1)(iii) of this section to protect employees on construction sites. These requirements are in addition to any other requirements for equipment grounding conductors.

Ground-fault circuit interrupters

All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground-fault circuit interrupters for personnel protection. Receptacles on a two-wire, single-phase portable or vehicle-mounted generator rated not more than 5kW, where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces, need not be protected with ground-fault circuit interrupters.

10) Methods of Guarding

One or more methods of guarding shall be provided where required to protect the operator and other employees in the area from hazards such as those created by point of operation, in running nip points, rotating parts, flying chips and sparks. Examples of guarding methods are; barrier guards, two-hand tripping devices, electronic safety devices, etc. The guard shall be such that it does not offer an accident hazard in itself. Employees will:

- Inspect tools without guards for signs of guard removal. If it is evident that a guard is required, tag-out the tool and obtain a replacement. Tools will not be energized during inspection.
- Inspect tools having guards for proper operation and maintenance prior to use.
- Tools will not be energized during inspection.
- Never remove a guard during use.

11) Initial Training

Training shall be conducted prior to job assignment. DEB Construction, LLC shall provide training to ensure that the grounding requirements, purpose, function, and proper use of tools to be used in the normal function of their jobs is understood by employees and that the knowledge and skills required for the safe application, and usage is acquired by employees. This standard practice instruction shall be provided to and read by all employees receiving training. The training shall include, as a minimum the following:

- Grounding requirements for tools and associated site electrical equipment.
- Types of tools appropriate for use.



- Recognition of applicable electrical hazards associated with work to be completed.
- Tool selection requirements.
- Procedures for removal of an electrical tool/accessory from service.
- All other employees whose work operations are or may be in an area with tools which could present a hazard to anyone other than the user, will be instructed to an awareness level concerning hazards.

12) Refresher Training

This standard practice instruction shall be provided to and read by all employees receiving refresher training. The training content shall be identical to initial training. Refresher training will be conducted on a required basis or when the following conditions are met, whichever event occurs sooner.

- Retraining shall be provided for all authorized and affected employees whenever there is a change (or prior to change) in their job assignment, a change in the type of tools being used, or when a known hazard is added to the work environment.
- Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever DEB Construction, LLC has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of tools.



DEB Construction, LLC

Short Service Employee (SSE)

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities involving a Short Service Employee (SSE).

SCOPE

Only employees who have been trained in the requirements of a Short Service Employee (SSE) can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of a Short Service Employee (SSE) hazards to personnel and the public.



A. Definition:

1. An employee is generally considered a "Short Service Employee" if they have less than 6 months experience with their present employer, or in their present role.

B. Responsibilities:

1. A Short Service Employee may not work alone.
2. A work crew of less than 5 employees may not have more than one Short Service Employee.

C. Notification:

1. Prior to starting work, DEB will notify the host facility if Short Service Employees are present on work crews.

D. Identification:

1. Short Service Employees shall be visibly identified through a "0" emblem located on their hardhats.

E. SSE Monitored:

1. Short Service Employees shall be monitored for compliance with health, safety, and environmental policies and procedures.
2. Once the Short Service Employee has demonstrated competency and compliance with HSE policies and procedures, DEB will upgrade the hi-visibility identifier to a "1".

F. Mentorship:

1. A mentoring system shall be implemented to provide guidance to Short Service Employees and assist with their development.
2. A mentor will only be assigned to one crew that includes Short Service Employees, and they will remain on site with them.

G. Subcontractors:

1. If subcontractors are on jobs that require SSE compliance, all items above will apply.



DEB Construction, LLC

Rigging

PURPOSE

The requirement stated within this work practice is to prevent injury to employees who are required to perform work activities involving Rigging.

SCOPE

Only employees who have been trained in the requirements of Rigging can perform elevated work activities referenced herein. It is the responsibility of supervision to review related work practices and their assignment to trades personnel for the appropriate method of a Rigging hazards to personnel and the public.



A. General:

1. Rigging equipment for material handling shall be inspected prior to use on each shift and as necessary during its use to ensure that it is safe. Defective rigging equipment shall be removed from service.
2. Employers must ensure that rigging equipment:
 - (a) Has permanently affixed and legible identification markings as prescribed by the manufacturer that indicate the recommended safe working load;
 - (b) Not be loaded in excess of its recommended safe working load as prescribed on the identification markings by the manufacturer; and
 - (b) Not be used without affixed, legible identification markings, required by paragraph (b) of this section.
 - (c) All employees shall be kept clear of loads about to be lifted and of suspended loads.
 - i. All employees shall be kept clear of loads about to be lifted and of suspended loads.
3. Rigging equipment, when not in use, shall be removed from the immediate work area so as not to present a hazard to employees.
4. Special custom design grabs, hooks, clamps, or other lifting accessories, for such units as modular panels, prefabricated structures and similar materials, shall be marked to indicate the safe working loads and shall be proof-tested prior to use to 125 percent of their rated load.
5. Scope. This section applies to slings used in conjunction with other material handling equipment for the movement of material by hoisting, in employments covered by this part. The types of slings covered are those made from alloy steel chain, wire rope, metal mesh, natural or synthetic fiber rope (conventional three strand construction), and synthetic web (nylon, polyester, and polypropylene).
6. Inspections. Each day before being used, the sling and all fastenings and attachments shall be inspected for damage or defects by a competent person designated by the employer. Additional inspections shall be performed during sling use, where service conditions warrant. Damaged or defective slings shall be immediately removed from service.



B. Alloy steel chains:

1. Welded alloy steel chain slings shall have permanently affixed durable identification stating size, grade, rated capacity, and sling manufacturer.
2. Hooks, rings, oblong links, pear-shaped links, welded or mechanical coupling links, or other attachments, when used with alloy steel chains, shall have a rated capacity at least equal to that of the chain.
3. Job or shop hooks and links, or makeshift fasteners, formed from bolts, rods, etc., or other such attachments, shall not be used.
4. Employers must not use alloy steel-chain slings with loads in excess of the rated capacities (i.e., working load limits) indicated on the sling by permanently affixed and legible identification markings prescribed by the manufacturer.
5. Whenever wear at any point of any chain link exceeds that shown in Table H-1, the assembly shall be removed from service.
6. Inspections.
 - (a) In addition to the inspection required by other paragraphs of this section, a thorough periodic inspection of alloy steel chain slings in use shall be made on a regular basis, to be determined on the basis of (A) frequency of sling use; (B) severity of service conditions; (C) nature of lifts being made; and (D) experience gained on the service life of slings used in similar circumstances. Such inspections shall in no event be at intervals greater than once every 12 months.
 - (b) The employer shall make and maintain a record of the most recent month in which each alloy steel chain sling was thoroughly inspected, and shall make such record available for examination.

C. Wire rope:

1. Employers must not use improved plow-steel wire rope and wire-rope slings with loads in excess of the rated capacities (i.e., working load limits) indicated on the sling by permanently affixed and legible identification markings prescribed by the manufacturer.
2. Protruding ends of strands in splices on slings and bridles shall be covered or blunted.
3. Wire rope shall not be secured by knots, except on haul back lines on scrapers.



4. The following limitations shall apply to the use of wire rope:

(a) An eye splice made in any wire rope shall have not less than three full tucks. However, this requirement shall not operate to preclude the use of another form of splice or connection which can be shown to be as efficient and which is not otherwise prohibited.

(b) Except for eye splices in the ends of wires and for endless rope slings, each wire rope used in hoisting or lowering, or in pulling loads, shall consist of one continuous piece without knot or splice.

(c) Eyes in wire rope bridles, slings, or bull wires shall not be formed by wire rope clips or knots.

(d) Wire rope shall not be used if, in any length of eight diameters, the total number of visible broken wires exceeds 10 percent of the total number of wires, or if the rope shows other signs of excessive wear, corrosion, or defect.

5. When U-bolt wire rope clips are used to form eyes, Table H-2 shall be used to determine the number and spacing of clips.

(a) When used for eye splices, the U-bolt shall be applied so that the "U" section is in contact with the dead end of the rope.

6. Slings shall not be shortened with knots or bolts or other makeshift devices.

7. Sling legs shall not be kinked.

8. Slings used in a basket hitch shall have the loads balanced to prevent slippage.

9. Slings shall be padded or protected from the sharp edges of their loads.

10. Hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load.

11. Shock loading is prohibited.

12. A sling shall not be pulled from under a load when the load is resting on the sling.

13. Minimum sling lengths.

(a) Cable laid and 6 × 19 and 6 × 37 slings shall have a minimum clear length of wire rope 10 times the component rope diameter between splices, sleeves or end fittings.



(b) Braided slings shall have a minimum clear length of wire rope 40 times the component rope diameter between the loops or end fittings.

(c) Cable laid grommets, strand laid grommets and endless slings shall have a minimum circumferential length of 96 times their body diameter.

14. Safe operating temperatures. Fiber core wire rope slings of all grades shall be permanently removed from service if they are exposed to temperatures in excess of 200 °F (93.33 °C). When nonfiber core wire rope slings of any grade are used at temperatures above 400 °F (204.44 °C) or below minus 60 °F (15.55 °C), recommendations of the sling manufacturer regarding use at that temperature shall be followed.

15. End attachments.

(a) Welding of end attachments, except covers to thimbles, shall be performed prior to the assembly of the sling.

(b) All welded end attachments shall not be used unless proof tested by the manufacturer or equivalent entity at twice their rated capacity prior to initial use. The employer shall retain a certificate of the proof test, and make it available for examination.

16. Wire rope slings shall have permanently affixed, legible identification markings stating size, rated capacity for the type(s) of hitch(es) used and the angle upon which it is based, and the number of legs if more than one.

D. Natural rope, and synthetic fiber:

1. Employers must not use natural- and synthetic-fiber rope slings with loads in excess of the rated capacities (i.e., working load limits) indicated on the sling by permanently affixed and legible identification markings prescribed by the manufacturer.

2. All splices in rope slings provided by the employer shall be made in accordance with fiber rope manufacturers recommendations.

(a) In manila rope, eye splices shall contain at least three full tucks, and short splices shall contain at least six full tucks (three on each side of the centerline of the splice).



(b) In layed synthetic fiber rope, eye splices shall contain at least four full tucks, and short splices shall contain at least eight full tucks (four on each side of the centerline of the splice).

(c) Strand end tails shall not be trimmed short (flush with the surface of the rope) immediately adjacent to the full tucks. This precaution applies to both eye and short splices and all types of fiber rope. For fiber ropes under 1-inch diameter, the tails shall project at least six rope diameters beyond the last full tuck. For fiber ropes 1-inch diameter and larger, the tails shall project at least 6 inches beyond the last full tuck. In applications where the projecting tails may be objectionable, the tails shall be tapered and spliced into the body of the rope using at least two additional tucks (which will require a tail length of approximately six rope diameters beyond the last full tuck).

(d) For all eye splices, the eye shall be sufficiently large to provide an included angle of not greater than 60° at the splice when the eye is placed over the load or support.

(e) Knots shall not be used in lieu of splices.

3. Safe operating temperatures. Natural and synthetic fiber rope slings, except for wet frozen slings, may be used in a temperature range from minus 20 °F (-28.88 °C) to plus 180 °F (82.2 °C) without decreasing the working load limit. For operations outside this temperature range and for wet frozen slings, the sling manufacturer's recommendations shall be followed.

4. Splicing. Spliced fiber rope slings shall not be used unless they have been spliced in accordance with the following minimum requirements and in accordance with any additional recommendations of the manufacturer:

(a) In manila rope, eye splices shall consist of at least three full tucks, and short splices shall consist of at least six full tucks, three on each side of the splice center line.

(b) In synthetic fiber rope, eye splices shall consist of at least four full tucks, and short splices shall consist of at least eight full tucks, four on each side of the center line.

(c) Strand end tails shall not be trimmed flush with the surface of the rope immediately adjacent to the full tucks. This applies to all types of fiber rope and both eye and short splices. For fiber rope under 1 inch (2.54 cm) in diameter, the tail shall project at least six rope diameters beyond the last full tuck. For fiber rope



1 inch (2.54 cm) in diameter and larger, the tail shall project at least 6 inches (15.24 cm) beyond the last full tuck. Where a projecting tail interferes with the use of the sling, the tail shall be tapered and spliced into the body of the rope using at least two additional tucks (which will require a tail length of approximately six rope diameters beyond the last full tuck).

(d) Fiber rope slings shall have a minimum clear length of rope between eye splices equal to 10 times the rope diameter.

(e) Knots shall not be used in lieu of splices.

(f) Clamps not designed specifically for fiber ropes shall not be used for splicing.

(g) For all eye splices, the eye shall be of such size to provide an included angle of not greater than 60 degrees at the splice when the eye is placed over the load or support.

5. End attachments. Fiber rope slings shall not be used if end attachments in contact with the rope have sharp edges or projections.

6. Removal from service. Natural and synthetic fiber rope slings shall be immediately removed from service if any of the following conditions are present:

(a) Abnormal wear.

(i) Powdered fiber between strands.

(ii) Broken or cut fibers.

(iii) Variations in the size or roundness of strands.

(iv) Discoloration or rotting.

(v) Distortion of hardware in the sling.

7. Employers must use natural- and synthetic-fiber rope slings that have permanently affixed and legible identification markings that state the rated capacity for the type(s) of hitch(es) used and the angle upon which it is based, type of fiber material, and the number of legs if more than one.

E. Synthetic webbing (nylon, polyester, and polypropylene).

1. The employer shall have each synthetic web sling marked or coded to show:



(a) Name or trademark of manufacturer.

(b) Rated capacities for the type of hitch.

(c) Type of material.

2. Rated capacity shall not be exceeded.

(a) Webbing. Synthetic webbing shall be of uniform thickness and width and selvage edges shall not be split from the webbing's width.

(b) Fittings. Fittings shall be:

(i) Of a minimum breaking strength equal to that of the sling; and

(ii) Free of all sharp edges that could in any way damage the webbing.

(c) Attachment of end fittings to webbing and formation of eyes. Stitching shall be the only method used to attach end fittings to webbing and to form eyes. The thread shall be in an even pattern and contain a sufficient number of stitches to develop the full breaking strength of the sling.

(d) Environmental conditions. When synthetic web slings are used, the following precautions shall be taken:

(i) Nylon web slings shall not be used where fumes, vapors, sprays, mists or liquids of acids or phenolics are present.

(ii) Polyester and polypropylene web slings shall not be used where fumes, vapors, sprays, mists or liquids of caustics are present.

(iii) Web slings with aluminum fittings shall not be used where fumes, vapors, sprays, mists or liquids of caustics are present.

(g) Safe operating temperatures. Synthetic web slings of polyester and nylon shall not be used at temperatures in excess of 180 °F (82.2 °C). Polypropylene web slings shall not be used at temperatures in excess of 200 °F (93.33 °C).

(h) Removal from service. Synthetic web slings shall be immediately removed from service if any of the following conditions are present:

(i) Acid or caustic burns;

(ii) Melting or charring of any part of the sling surface;



- (iii) Snags, punctures, tears or cuts;
- (iv) Broken or worn stitches; or
- (v) Distortion of fittings.

F. Shackles and hooks:

1. Employers must not use shackles with loads in excess of the rated capacities (i.e., working load limits) indicated on the shackle by permanently affixed and legible identification markings prescribed by the manufacturer.
2. The manufacturer's recommendations shall be followed in determining the safe working loads of the various sizes and types of specific and identifiable hooks. All hooks for which no applicable manufacturer's recommendations are available shall be tested to twice the intended safe working load before they are initially put into use. The employer shall maintain a record of the dates and results of such tests.
 - (a) Hooks and shackles shall be used in accordance with manufacturer's recommendations.
3. Hooks used in the connection between the hoist line and the personnel platform (including hooks on overhaul ball assemblies, lower load blocks, bridle legs, or other attachment assemblies or components) must be:
 - (a) Of a type that can be closed and locked, eliminating the throat opening.
 - (b) Closed and locked when attached.
4. Shackles used in place of hooks must be of the alloy anchor type, with either:
 - (a) A bolt, nut and retaining pin, in place; or
 - (b) Of the screw type, with the screw pin secured from accidental removal.
5. Where other detachable devices are used, they must be of the type that can be closed and locked to the same extent as the devices addressed in paragraphs (3)(a)(b) of this section. Such devices must be closed and locked when attached.

G. Swing:

1. When rotating the crane, sudden stops shall be avoided. Rotational speed shall be such that the load does not swing out beyond the radius at which it can be safely controlled.



(a) When rotating the crane, sudden starts and stops shall be avoided. Rotational speed shall be such that the load does not swing out beyond the radii at which it can be controlled. A tag or restraint line shall be used when rotation of the load is hazardous.

2. Tag or restraint lines shall be used where rotation of the load is hazardous.
3. Cranes or boom-type excavators shall not be mounted by personnel, unless the unit is stopped or an exchange of signals with the operator indicates that it is safe to mount.
4. A locomotive crane shall not be swung into a position where railway cars on an adjacent track might strike it, until it has been ascertained that cars are not being moved on the adjacent track and proper flag protection has been established.



DEB Construction, LLC

General Waste Management

INTRODUCTION

About 32 million workers are potentially exposed to one or more chemical hazards on a daily basis. There are an estimated 575,000 existing chemical products and hundreds of new ones being introduced annually. This poses a serious problem for exposed workers and their employer. The OSHA Hazard Communication Standard and General Waste Management establishes uniform requirements to make sure that the hazards of all chemicals imported into, produced, or used in U.S. workplaces are evaluated, and that this hazard information is transmitted to all affected workers.

GENERAL

DEB Construction, LLC will ensure that the hazards of all chemicals used within our facility are evaluated, and that information concerning these hazards is transmitted to all employees. This standard practice instruction is intended to address comprehensively the issues of; evaluating the potential hazard of chemicals, communicating information concerning these hazards, and establishing appropriate protective measures for employees.

RESPONSIBILITY

The company Human Resources Department is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Human Resources Department will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions.

DEB Construction, LLC has expressly authorized Human Resources, Project Managers and Superintendents to halt any operation of the company where there is danger of work-related injuries and illnesses.



Contents

1. Written Program
2. Training Program
3. Labeling Program
4. Safety Data Sheets
5. Non-Routine Tasks
6. Definitions
7. Sample Letter Requesting an SDS



1. Written Program

This standard practice instruction will be maintained in accordance with 29 CFR 1910.1200 and updated as required. Where no update is required, this document will be reviewed annually. Effective implementation of this program requires support from all levels of management within DEB Construction, LLC. This written program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of the number of workers employed or the number of work shifts. It is designed to establish clear goals, and objectives. DEB Construction, LLC shall:

- a) Annually review and revise this written General Waste Management program based on Company operational requirements or, as required by the OSHA Hazard Communication Standard.
- b) Provide a program for proper labeling of containers, describe other needed forms of warning, and detail the use and purpose of safety data sheets (SDS). Describe how employee information and training requirements will be met, to include the following:
 - Maintain a list of the hazardous chemicals known to be present on the job site.
 - This list will be available to all employees through the Safety Director.

The hazards associated with chemicals contained in process or facility piping routed through their work area. The Superintendent or Project Manager of affected employees will oversee this requirement. The Safety Director may be consulted to provide any hazard analysis assistance required. Any unlabeled pipes in their work areas must be immediately reported to the Superintendent for labeling.

DEB Construction, LLC will advise employee(s) of any precautionary measures during normal operating conditions and in foreseeable emergencies. Immediate supervisors of affected employees will oversee this requirement. The Safety Director may be consulted to provide any task hazard analysis assistance required.

DEB Construction, LLC shall make the written hazard communication program available to all employees.

Before any work begins the amount of waste that will be generated will be estimated prior to the start of work. This will enable the proper amount of containers will be on the premises for waste removal before the work commences. If the waste is determined to be scrap materials a scrap material plan will be generated for each project. All scrap material, lumber, waste material, and rubbish shall be removed from the immediate work area as the work progresses. All waste will be separated into containers should the waste be recycled whenever possible.



2. Training Program

DEB Construction, LLC shall provide employees with information on General Waste Management and training on hazardous chemicals in their work area at the time of their initial assignment, annually, and whenever a new chemical is introduced into their work area that could present a potential hazard.

DEB Construction, LLC employees shall be informed of:

- a) Any operations in their work area where hazardous chemicals are present.
- b) The location and availability of the written General Waste Management program, including a list(s) of hazardous chemicals used in their department, and the associated safety data sheet (SDS).

This information will be available through the Safety Director.

Employee hazard communication training and General Waste Management at DEB Construction, LLC shall be conducted annually. Newly hired personnel will be briefed on the general requirements of the OSHA hazard communication standard by the Safety Director, as well as duty specific hazards by their Superintendent or Project Manager before they begin any duties within the jobsite. Intra-departmentally transferred personnel will also be briefed on the duty specific hazards by their Superintendent or Project Manager before they begin any duties within the jobsite.

This training will include at least the following:

Methods (subjective and objective) that may be used to detect the presence or release of a hazardous chemical in the work area. This will include; any monitoring conducted by DEB Construction, LLC, continuous monitoring devices, visual appearance, or odor of hazardous chemicals when being released, etc. The physical and health hazards of the chemicals present in the work area {SDS}. The measures employees can take to protect themselves from these hazards. Specific procedures DEB Construction, LLC has implemented to protect employees from exposure to hazardous chemicals, to include; appropriate work practices, Standard Practice Instructions, emergency procedures and personal protective equipment. An explanation of the labeling system used at DEB Construction, LLC, the safety data sheet, and how employees can obtain and use the appropriate hazard information. The chemical (formal) and common name(s) of products used, and all ingredients which have been determined to be health hazards. Physical and chemical characteristics of the hazardous chemical including, vapor pressure, and flash point. The physical hazards of the hazardous chemical, which includes the potential for fire, explosion and reactivity. The health hazards of the hazardous chemical, including signs and symptoms of exposure and any medical conditions which are generally recognized as being aggravated by exposure to the chemical. The primary route(s) of entry; inhalation, absorption, ingestion, injection and target organs. The OSHA permissible exposure limit, ACGIH Threshold Limit Value, including any other exposure limit used or recommended by the chemical manufacturer. The hazardous chemical



has been found to be a potential carcinogen by the International Agency for Research on Cancer (IARC). Any generally applicable precautions for safe handling and use which are known including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean-up of spills and leaks. Any generally applicable control measures which are known, appropriate engineering controls, work practices, or personal protective equipment. Emergency and first aid procedures. How to determine the date of preparation of the safety data sheet concerned, and/or the last change to it. Specific chemical identity such as the chemical name, Chemical Abstracts Service (CAS) Registry Number, synonyms, or any other information pertinent to the training session.

All training will be documented.

3. Labeling Requirements

Labeling requirements for containers of chemicals used at DEB Construction, LLC, as well as containers of chemicals and hazardous materials being shipped off site.

The following procedures apply:

No unmarked container containing chemicals may be used in conjunction with any duties or operations at DEB Construction, LLC, unless the container is a **portable** container in the control of a specific person for their immediate use. **Container** means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this standard practice instruction, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers. **Immediate use** means that the hazardous chemical will be under the control of, and used only by, the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Employees shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced. Containers containing hazardous chemicals will be properly disposed of and the labels defaced after use. Once they are emptied, chemical containers can never be used in the place of any other container (for example, trash receptacles).

- a) Label information for a single chemical (non-mixture).

DEB Construction, LLC will provide the appropriate hazard rating and chemical compatibility charts to label containers. The SDS will be consulted first to determine labeling requirements. The label as a minimum will contain information concerning the personal protective equipment (PPE) required to use or handle the chemical. The DOT hazard class i.e., whether the chemical is flammable, toxic, irritating, corrosive, water reactive, or is an oxidizer. The chemical name **as reflected on the SDS**. The normal operational use of the chemical. Name, address, and emergency phone number of the chemical manufacturer, importer, or other responsible party.



b) Label Information (mixtures).

DEB Construction, LLC will provide the appropriate hazard rating and chemical data to label containers. The SDS's of the chemicals used to create the mixture will be consulted first to determine labeling requirements.

If a mixture has been tested by an approved laboratory as a whole to determine its hazardous characteristics, the results of such testing shall be used to determine whether the mixture is hazardous and to provide the appropriate labeling information.

If a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture. Scientifically valid data such as that provided on the SDS to evaluate the physical hazard potential of the mixture must be used. The Safety Director may be consulted to provide any hazard analysis assistance required.

c) Where Labels are not required

Questions concerning any of the exceptions listed below should be directed to the Safety Director for clarification. DEB Construction, LLC generally should not be affected by these requirements, however they are provided for information and because they are included in the Hazard Communication Standard. The Hazard Communication Standard does not require labeling of the following chemicals:

Labeling of containers of chemicals and hazardous materials being shipped off site designated as hazardous waste. Where these materials are classified as hazardous waste, they fall under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.), and the provisions of 40 CFR. And as such will be subject to regulations issued under that Act by the Environmental Protection Agency. Consult with the Safety and Environmental Administrator where this determination is unclear, or assistance is required.

4. Evaluation and Distribution of Safety Data Sheets to Employees

DEB Construction, LLC shall maintain copies of any Safety Data Sheets that are received with incoming shipments of the sealed containers of hazardous chemicals, shall obtain a Safety Data Sheet for sealed containers of hazardous chemicals received without a Safety Data Sheet if an employee requests the Safety Data Sheet, and shall ensure that the Safety Data Sheets are readily accessible during each work shift.

Master copies of each SDS will be maintained in the corporate office. Right-To-Know (worker) copies can be requested from the Safety Officer.



A request letter will be forwarded to any vendor who does not provide an SDS with a product received by this Company. The letter will be forwarded within 10 days of receipt of the material. The format will be the same as the sample letter located at the back of this instruction.

Employees must be familiar with the various sections of the SDS. The Superintendent or the Safety Director are required to review the SDS information yearly with all employees.

5. Non-Routine Tasks

No employee will be allowed to perform tasks that they are not fully trained to accomplish. Non routine tasks will be evaluated prior to accomplishment of work and the related hazard(s) assessed to develop protective measures.

6. Definitions:

Article means a manufactured item:

- a) Which is formed to a specific shape or design during manufacture.
- b) Which has end use function(s) dependent in whole or in part upon its shape or design during end use.
- c) Which does not release, or otherwise result in exposure to, a hazardous chemical, under normal conditions of use.

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Chemical means any element, chemical compound or mixture of elements and/or compounds.

Chemical manufacturer means an employer with a workplace where chemical(s) are produced for use or distribution.

Chemical name means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

Combustible liquid means any liquid having a flashpoint at or above 100 F (37.8C), but below 200 F (93.3C), except any mixture having components with flashpoints of 200 F {93.3C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Common name means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.



Compressed gas means:

- a) A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 F (21.1 C); or
- b) A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 F (54.4 C) regardless of the pressure at 70 F (21.1 C); or
- c) A liquid has a vapor pressure exceeding 40 psi at 100 F (37.8 C) as determined by ASTM D-323-72.

Designated representative means any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

Director means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

Distributor means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

Employee means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

Employer means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

Explosive means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

Exposure or exposed means that an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes potential (e.g. accidental or possible) exposure.

Flammable means a chemical that falls into one of the following categories:

- a) **Aerosol**, flammable means an aerosol that, when tested by the method described in 26 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening.
- b) **Gas**, flammable means:
 - i) A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less.



- ii) A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit.
 - iii) Liquid, flammable means any liquid having a flashpoint below 100 F (37.8 C), except any mixture having components with flashpoints of 100 F (37.8 C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.
 - iv) Solid, flammable means a solid, other than a blasting agent or explosive as defined in § 190.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.
- c) **Flashpoint** means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite.

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

Hazardous chemical means any chemical which is a physical hazard or a health hazard.

Hazard warning means any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the hazard(s) of the chemical(s) in the container(s).

Health hazard means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term health hazard includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritant, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A, to 29 CFR 1910.1200 provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix B, 29 CFR 1910.1200 describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of this standard practice instruction.

Identity means any chemical or common name which is indicated on the safety data sheet (SDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the SDS.



Immediate use means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Importer means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

Label means any written, printed, or graphic material, displayed on or affixed to containers of hazardous chemicals.

Safety data sheet (SDS) means written or printed material concerning a hazardous chemical which is prepared in accordance with State and Federal standards.

Mixture means any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

Organic peroxide means an organic compound that contains the bivalent -O-O structure, and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Oxidizer means a chemical other than a blasting agent or explosive as defined in 29 CFR 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

Physical hazard means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Produce means to manufacture, process, formulate or repackage.

Pyrophoric means a chemical that will ignite spontaneously in air at a temperature of 130 F (54.4 C) or below.

Responsible party means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

Specific chemical identity means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

Trade secret means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it.



Unstable (reactive) means a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

Use means to package, handle, react, or transfer.

Water-reactive means a chemical that reacts with water to release a gas that is either flammable or presents a health hazard. Often when the water is heated it goes into a gaseous state allowing oxygen to be released which can help feed a fire.

Work area means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Work place means an establishment, job site, or project, at one geographical location containing one or more work areas.



SAMPLE LETTER REQUESTING AN SDS

DEB Construction, LLC
2230 E. Winston Road
Anaheim, CA 92806-5536

Dear Sir:

OSHA requires employers be provided Safety Data Sheets (SDS's) for all hazardous substances used in their facility, and to make these SDS's available to employees potentially exposed to these hazardous substances.

We, therefore, request a copy of the SDS for your product listed as Stock Number__. We did not receive an SDS with the initial shipment. We also request any additional information, supplemental SDS's, or any other relevant data that your company or supplier has concerning the safety and health aspects of this product.

Please consider this letter as a standing request to your company for any information concerning the safety and health aspects of using this product that may become known in the future.

The SDS and any other relevant information should be sent to us within 10 days. Delays may prevent use of your product. Send the information to the address listed below.

Your cooperation is greatly appreciated. Thank you for your timely response to this request. If you have any questions, please contact me at (714) 632-6680.

Sincerely,

Jean Lee

Human Resource Manager
DEB Construction, LLC
2230 E. Winston Road
Anaheim, CA 92806-5536



Pandemic Preparedness

DEB adopts this plan to prepare for and respond to a threat of influenza or other pandemic that causes serious widespread illness. The company appoints Human Resources Personnel as Coordinator for the pandemic response plan.

The purpose of this plan is to address the following issues related to pandemics:

- Creating a culture of infection control in the workplace that is reinforced during the annual influenza season, to include, if possible, options for working offsite while ill, systems to reduce infection transmission, and worker education.
- Establishing contingency plans to maintain delivery of services during times of significant and sustained worker absenteeism.
- Where possible, establishing mechanisms to allow workers to provide services from home if public health officials advise against non-essential travel outside the home.
- Establishing partnerships with other members of the financial community to provide mutual support and maintenance of essential services during a pandemic.

The company also appoints a team of management level and other appropriate staff to assist the Coordinator known as the Pandemic Response Team. The members of this team will be decided on a case by case basis and the needs of the company.

It is the duty of the Coordinator to:

- Monitor issues and information related to pandemics to keep our plan up to date.
- Recommend any changes to the plan as circumstances warrant.



- Conduct employee training.
- Communicate with public health agencies, emergency responders and others regarding our plan, and understand their capabilities should an outbreak occur.
- Attend external training/seminars about pandemic influenza outbreaks in order to remain current about the pandemic threat in our community.
- Implement this plan should it become necessary.

Pandemic Response Team members will have the following responsibilities:

- Identify and communicate to the Coordinator which employees, vendors, suppliers and systems are essential to maintaining operations at their locations.
- Identify and communicate to the Coordinator the names of possible ancillary employees who could perform certain job duties in the case of a pandemic (e.g. consultants, temporary work services, retired employees).
- Develop and communicate to the Coordinator an emergency communications plan for their departments/locations, including identification of key personnel, vendors, and customers.
- Develop and submit a plan to continue operations at their locations with the least possible number of staff.
- Ensure that all employees in their departments are adequately trained on emergency procedures in the case of a pandemic and in the prevention of illness.
- Encourage all employees to be vaccinated annually for influenza.
- Assist the Coordinator in the implementation of this plan, if necessary, at their locations.

Preparation

The Coordinator will maintain a list of contacts in the health profession to provide consultation and advice regarding this plan and its implementation.

Encourage employees to obtain appropriate immunizations.

The Coordinator will, at least annually prior to the influenza season, provide information to all employees regarding those practices that are recommended by public health officials that will reduce the spread of the infection. The Coordinator will also develop a list of recommended infection control supplies (hand soaps, tissues, and so on) and ensure that each location has a sufficient supply of them.

Routine cleaning/disinfection of surfaces such as desktops, keyboards, lunch tables, doorknobs, faucets, handrails, ect. Are accomplished to prevent pandemics.

The Coordinator will maintain a list of duties and positions for which individual employees are cross-trained within the company. Should staffing levels drop due to an outbreak, supervisors can use this list to fill in positions where needed.



The Coordinator will maintain a list of duties that employees can perform from home, as well as any equipment (such as computers) that may be necessary to perform those duties. Supervisors can then draw on this list to have those duties performed by employees from home should it become necessary.

The Coordinator shall recommend to the executive team an emergency sick leave policy to be adopted in the event of a pandemic. The policy is to be non-punitive and require employees who have been exposed or who exhibit symptoms of the illness to remain at home.

The Coordinator and the Information Technology Director will ensure that the agency has sufficient IT infrastructures to support employee telecommuting and remote access to agency services.

The Coordinator and the Human Resource Manager will establish the following policies and procedures:

- Flexible work hours, including staggered work hours and telecommuting
- Restricting employee travel to affected areas
- Guidance for employees returning to the United States from affected areas
- Counseling services for all employees and their families, particularly those affected by illness
- Special procedures/accommodations for employees and customers with special needs or disabilities

The Coordinator shall develop a plan to keep employees informed of developments as they occur, including those employees who remain at home. This could include plans to obtain home e-mail addresses, telephone numbers for employees to call to receive recorded messages, pages on the website for employees, and so on. The plan must also include procedures for responding promptly to employees' questions about such issues as whether to report for work and special hours of operations during a flu outbreak.

An effective internal employee communication procedure will be developed to maintain communication during the pandemic.

The Coordinator and Pandemic Response Team will conduct random drills at all locations to test the effectiveness of our plan.

Should a Pandemic Occur

Should a pandemic occur, the Coordinator will, after consultation with knowledgeable health officials, implement the following steps, as deemed necessary:

- Encourage customers and potential customers to use remote facilities. The staffing of these services is to be increased as necessary to ensure that individuals using them receive prompt service and response so they will continue to use them.
- Employees with job duties that can be accomplished by telecommuting will be encouraged to work from home unless they have been cross-trained to work in place of an employee who is ill.
- The emergency sick leave policy shall be implemented. Supervisors will be instructed to send and keep employees home if they exhibit symptoms of the illness, working from home if practical.
- Team members will contact their key vendors to determine the impact of the outbreak on their operations and its effects on our ability to perform our daily functions, and they will communicate the



results to the Coordinator. The Coordinator will see to it that we obtain extra quantities of any necessary supplies that may be threatened due to the outbreak.

- The Coordinator, with the assistance of team members, will monitor staffing levels at all locations and assist supervisors in finding ways to maintain critical operations in light of any staffing shortage. Should the closing of any locations be a consideration due to inadequate staffing availability, the Coordinator will first contact the [Health Officer] to obtain their advice and consent prior to any closing. Should an office be closed, notices shall be posted prominently at the location informing customers of the situation and telling them where and how they can transact business. Telephone and other lines of communication must be routed to a location where they will be staffed by employees so customers' attempts to reach us do not go unanswered.
- The Coordinator is to ensure that the public is kept informed of any changes that affect their transaction of business with us. This information is to be included on the home page of our website, in the lobbies of our locations, and in other media as appropriate.
- The Coordinator is to implement the employee contact plan to ensure that all employees are kept informed of developments as they occur, including employees who remain at home.
- Limit large or crowded gathering of personnel if an outbreak or increased level of disease is in progress.

Testing Our Plan

The executive team directs the Emergency Preparedness Coordinator to conduct an annual assessment of our Pandemic Response Plan and submit its findings to the executive team with the Pandemic Coordinator's and individual managers' responses to exceptions.



DEB Construction

COVID-19 Plan for Project Jobsite

Safety & Health Response Plan for COVID-19 Exposure Mitigation

Purpose: To provide an effective COVID-19 response plan to DEB Construction (DEB) Project Team members to implement on their active jobsites.

This information is based on current understanding as of the effective date of this plan and may need to be updated as our knowledge and understanding evolves.

Issued from CDC -March 1,2024 COVID-19 recommendations.

- When people get sick with a respiratory virus, the updated guidance recommends that they stay home and away from others. The recommendations suggest returning to normal activities when, for at least 24 hours, symptoms are improving overall, and if fever was present, it has been gone without use of a fever-reducing medication.
- Once people resume normal activities, they are encouraged to take additional prevention strategies for the next 5 days to curb disease spread, such as taking more steps for cleaner air, enhancing hygiene practices, wearing a well-fitting mask, keeping a distance from others, and/or getting tested for respiratory viruses.

What Will DEB Do?

- Inform employees and guests current COVID-19 guidelines as needed
- Educate employees on general precautions to take to limit the spread of COVID-19.
- Reinforce the critical need for good hygiene practices.
- Make hand washing stations readily available to make it easy for employees to wash their hands.
 - Provide clean water and soap for employees to use several times a day. This may take the form of temporary water stations such as setting up water jugs and hand soap throughout the jobsite.
 - If clean water and soap are not available, provide hand sanitizer. Ensure that stations stay stocked and provide additional hand sanitizer when needed.
 - Provide single use paper towels and plastic disposal bags.
 - Allow employees to go on break to wash their hands.
- Communicate with employees regularly as necessary with important updates to ensure transparency and expectations.

When Social Distancing is mandated by Federal, State or Local

Authorities

- Utilize safe work practices **when social distancing is mandated by federal, state, and local authorities** we will enforce limiting the number of potentially exposed employees on the jobsite at one time. This may include:
 - Scheduling (e.g.: staggering shift start/end times) or rotating Subcontractor access to a designated area during a shift.
 - Stage the jobsite to stagger work and limit overlap of Subcontractor crews.
 - When practical, separate work areas
 - When necessary, provide temporary physical barriers to separate workers.
- Perform a risk analysis of the jobsite and the work tasks.
 - If the risk analysis shows the guidelines of the COVID-19 Response Plan cannot be met, work may not continue for the project, the specific area, or the specific task.
- Restrict access to enclosed spaces.
 - Limited access enclosed spaces (e.g.: trailers) should be identified and access should be restricted to essential personnel only.
 - Enclosed spaces (e.g.: toilets, break areas) must be viewed as potential transmission areas and treated accordingly. Time spent in these areas should be reduced as much as possible.
- Limit the number of employees gathering at one time.
 - Modify jobsite communications and reduce or eliminate group gatherings. This includes communal break areas and any other activity that would bring a group of employees together on a jobsite including Safety or Toolbox/Tailgate Safety Meetings.
- Delivery of materials and visits by third parties to the jobsite will be limited to project necessity.
- As a safety standard, when possible, practice social distancing.
 - Instruct workers to maintain a distance of at least 6 feet apart as much as possible on the jobsite, whether indoors or outdoors.
 - Morning Stretching and Toolbox/Tailgate Safety Meetings to continue at a crew level while maintaining social distancing of 6 feet or more.
 - Hold in-person meetings only when no other option is viable; maintain social distancing and hold meeting outside.
- During times that strict social distancing is being mandated by federal, state, and local authorities.
 - Do not hold meetings of more than 10 people.
 - Hold in-person meetings only when no other option is viable; maintain social distancing and hold meeting outside.
 - Eliminate community provided food & lunch areas (such as lunch buffets, donuts, candy dishes, etc.
 - Eliminate community coffee pots, water dispensers and microwaves from breakrooms and other common areas
 - Reconfigure break spaces to allow social distancing of 6 feet.
 - During times that Masks - Face Coverings and Respirators (N95 or KN95) are being

mandated by the federal, state, or local authorities.

- Allow the voluntary wearing of masks.
- Provide employees with disposable masks or cloth face coverings or N95 masks if required.
- Instruct employees to require all workers and visitors to wear masks before entering jobsite and during work shift and/or site visit.
- Identify and regularly clean and disinfect areas that are at high risk for transmission.
- Disinfect all reusable supplies and equipment including high touch areas of fleet vehicles.
- Provide appropriate Personal Protective Equipment (PPE).
- Require sick workers to stay home and send sick worker home.
- If fans or other means of ventilation are used on the job, place them to avoid blowing air from one worker or group of workers to another.
- Encourage workers to drive to jobsites or parking areas by themselves and limit the use of Public Transportation. Workers should avoid having passengers or carpooling together unless they are already sheltering in place together. If carpooling or the use of Public Transportation cannot be avoided, riders should sit as far apart as possible, wear face coverings/masks if indoor masks are being required and wash hands after the trip.
- Post Signage with CDC recommended COVID-19 Prevention Measures.
- Use Jobsite Screening list attached to determine if employees should work:
 - Follow federal, state, and local authorities' recommendations and ask the following questions (these questions may be revised by authorities):
 1. Regardless of your vaccination status, have you experienced any of the symptoms in the list below in the past 48 hours?
 - Fever or chills
 - Cough
 - Shortness of breath or difficulty breathing
 - Fatigue, Muscle or body aches
 - Headache
 - New loss of taste or smell
 - Sore throat
 - Congestion or runny nose
 - Nausea or vomiting
 - Diarrhea
 2. Have you tested positive for COVID-19 in the past 10 days?
 3. Are you currently awaiting results from a COVID-19 test?
 4. Have you been diagnosed with COVID-19 by a licensed healthcare provider?
 5. Have been told you are suspected to have COVID-19 by a licensed healthcare provider?
 6. Experience new loss of taste and/or smell with no other explanation; or Experience both fever (>100.4) and new unexplained cough associated with shortness of breath.

Send home anyone answering yes to these questions.

If Social Distancing is being Mandated by Federal, State or Local Authorities

- Follow federal, state, and local authorities' recommendations.
- Maintain good workplace hygiene including hand washing practices and cough/sneeze etiquette.
 - Wash your hands frequently with soap and water for at least 20 seconds. Use hand sanitizer with at least 60 percent alcohol when soap and water are not available. Always follow good handwashing practices:
 1. Upon arriving at the jobsite and before going home at the end of the day
 2. Before and after eating
 3. After using the toilet
 4. After touching garbage or other waste materials
 - Cover your mouth and nose when you cough and sneeze into a tissue if possible or your upper sleeve or elbow, not your hands, when tissues are not available. Dispose of tissues in the trash after use.
 - Avoid touching your eyes, nose, or mouth as much as possible.
- Follow federal, state, and local authorities' recommendations **if social distancing is in place.**
 - Maintain a distance of at least 6 feet from other workers when possible.
 - Do not shake hands when greeting others.
 - Limit large group interactions.
 - Follow these same practices off the job.
- Follow federal, state, and local authorities' recommendations **and if necessary**, require all workers and visitors to wear disposable mask or cloth face covering prior to entering jobsite and during work shift and/or visit.
- Report symptoms of COVID-19 immediately. If you are sick, **stay home**. If you feel sick and are at work, tell your Supervisor and HR.
- Cooperate with response measures instituted by DEB Construction, your employer and those recommended by health officials at the federal, state, and local level.
- Do not share other workers' phones, PPE, or other work tools and equipment.
- Avoid close contact with people who are sick.

When Outbreaks are present Practices for Cleaning and Disinfecting High-Risk Transmission Areas

- Frequently clean and sanitize surfaces in common areas (e.g.: break rooms, lunch areas, trailers) as well as toilet facilities.
- Wipe down high-touch surfaces (e.g.: faucets, handles to toilet facilities, tools, doorknobs).
- Consider propping doors open to limit handle usage when feasible.
- Clean dirty surfaces using a detergent or soap and water prior to disinfection.
- Place handwashing stations, hand sanitizer, or other hand cleaning methods in convenient locations such as the entry and exit to the jobsite.

- Clean and sanitize toilet facilities using the following best practices:
 - Keep toilets, clean, sanitary, and operational. Ensure proper disposal of waste from these facilities.
 - Consider providing additional toilet facilities if several workers will need to use the restroom at the same time.
 - Set a servicing schedule for cleaning, waste removal and replenishment of supplies such as toilet paper and handwashing agents.
- Use an EPA-registered cleaning agent specifically labeled for SARS-CoV-2:
 - EPA Approved COVID-19 Cleaning Products
 1. Follow the directions on the product; pay attention to the required “wet dwell” time to kill the virus (usually 5-10 minutes)
 - If an EPA-registered cleaning agent is not available, a solution of bleach and water can be used. Starting with common household bleach (5 percent strength in the U.S.), prepare the following solution for disinfecting:
 1. Two tablespoons bleach per quart of water
 - Always follow manufacturer instructions for all cleaning and disinfection products (e.g.: concentration, application method and contact time).
- Workers performing this cleaning and disinfecting should:
 - Wear PPE. This may include N95 respirators, double disposable gloves, protective clothing, and eye protection. Check the safety data sheet.
 - Be trained on safe donning, doffing and disposal of PPE to avoid infectious disease transmission.
 - Clean hands immediately after PPE is removed.
 - Be medically able to wear the type of respirator needed and trained on using it.
 - Be aware of the differences between dust masks and N95s. Dust masks do not protect the wearer from airborne respiratory droplets. Remember: dust masks protect others from exposure to you; N95 respirators protect you from exposure to others.

DEB Construction will inform all people that have had direct exposure to someone at a jobsite that has COVID-19 with confidentiality.



DEB Construction, LLC Accident Investigation Report

Other causes of why the accident happened. *(Management policies, personnel, environmental factors)*

Conclusions:

What can be done to prevent a similar accident from happening again?

Corrective Actions:

Describe what actions have already been taken to prevent a reoccurrence.

Corrective actions needed:	Assigned to:	Target Date:	Completion Date:

Management Review:

Signature:	Date:
-------------------	--------------



DEB Construction, LLC
 2230 East Winston Road
 Anaheim, California 92806
 Phone: (714) 632-6680
 Fax: (714) 632-5721

Project:

SITE SAFETY INSPECTION

Items Inspected	Pass	Fail	N/A	Neutral
-----------------	------	------	-----	---------

TYPE:	STATUS: Open
TRADE:	LOCATION:
SPEC SECTION:	LINKED DRAWINGS:
DESCRIPTION: Jobsite safety audit must be completed each week	
ATTACHMENTS:	

INSPECTION DETAILS

INSPECTION DATE:	INSPECTOR:
RESPONSIBLE CONTRACTOR:	POINT OF CONTACT:

Housekeeping and Sanitation

1.1	Project work areas are clean, orderly, and free of excess trash and debris Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
1.2	Trash receptables provided and maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
1.3	Aisles and stairs clear of debris Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
1.4	Material and equipment clean, properly stored, and orderly Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				



1.5	Proper number of well maintained portable toilets and hand wash facilities Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

1.6	Scrap material free of protruding nails or other puncture hazards Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
Pass Fail N/A Neutral

Fall Protection and Perimeter Protection

2.1	Fall prevention / protection methods reviewed prior to work start Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

2.2	Perimeter protection installed per policy and maintained throughout Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

2.3	Personal fall arrest systems used properly when needed Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

2.4	Controlled access zones are established with physical barriers and proper signage Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

2.5	Fall arrest system installed and inspected properly by a competent person Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
Pass Fail N/A Neutral

Ladders / Stair in Place and Maintained

3.1	Ladders properly used and maintained / inspected Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations



3.2	Stairs properly constructed and maintained with proper fall protection Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
3.3	Ladders used for access to upper / lower levels are provided with "walk through" rails Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
3.4	Proper access / egress are provided to upper / lower working levels Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
3.5	All access and egress to ladders and stairs clear and free of debris Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Scaffolds Constructed Properly and Maintained

4.1	Scaffold tags in place and inspected daily by a competent person Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
4.2	Scaffolds erected properly and maintained / tied in correctly Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
4.3	Proper access and egress provided Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
4.4	Swing gates provided for vertical ladders Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
4.5	Engineered / stamped drawings reviewed for complex scaffold systems Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A



Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 Pass 0 Fail 0 N/A 0 Neutral

Floor Openings / Penetrations

5.1	Hole covers are inspected and maintained on a daily basis Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

5.2	All holes greater than 2" in diameter covered, marked, and secured Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

5.3	All holes larger than 1' x 2' are provided with a secondary means of protection Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

5.4	All covers support at least twice the maximum intended load Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

5.5	Guardrails around holes provided with toeboards and maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 Pass 0 Fail 0 N/A 0 Neutral

Excavations Protected Properly / Egress Routes

6.1	Underground utilities reviewed / identified prior to excavating and verified by permit Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

6.2	Ladders provided for access within 25' Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations



Inspection

6.3	Proper sloping / benching / shoring / boxing for excavations greater than 5' deep Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
6.4	Physical barricades provided at the top edge of excavations Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
6.5	Documented daily inspections conducted by competent person Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
Pass Fail N/A Neutral

Adequate Lighting Provided

7.1	Lights provided throughout the project for access / egress routes Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
7.2	Adequate task lighting is provided for each employee Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
7.3	Temporary lighting is inspected on a regular basis Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
7.4	Temporary lighting properly protected Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
7.5	Lights provided for access points around the perimeter of the project Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
Pass Fail N/A Neutral

Electrical Power (GFCI / Electrical Cords / Power Lines)

8.1	Electrical cords are inspected on a daily basis Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
8.2	Lock out tag out / labeled breakers Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
8.3	Monthly GFI log Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
8.4	All electrical splices are properly protected Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
8.5	Electrical rooms (temporary and permanent) are kept clean and are free of excess materials and debris Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Environmental Issues

9.1	Erosion and sediment control inspected and maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
9.2	Hazardous materials are disposed properly Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
9.3	Site access roads are cleaned on an as needed basis Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				



Inspection

9.4	Dust control Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--------------------------	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

9.5	Secondary containment for fuel storage Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

9.6	Soil contaminants identified and protective measures in place (e.g., PPE, signage, disposal) Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
-----	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Fire Protection

10.1	Fire extinguishers provided for every 3,000 sq. ft. of building space, not to exceed 75' travel Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

10.2	Fire extinguishers inspected, tagged, logged monthly and serviced annually Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

10.3	Emergency plan practiced and egress routes maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

10.4	Hot work permits are utilized for all hot work operations and fire watch provided Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

10.5	Evacuation routes posted and all employees are informed of gathering point Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Cranes / Hoisting Apparatus / Rigging Condition

11.1	Cranes inspected on a daily basis and documentation is filed Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
11.2	Rigging inspected before each use, properly labeled, and stored properly Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
11.3	Crane set up per policy Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
11.4	Anti-two block(s) are provided for all cranes as required Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
11.5	Proper cribbing / dunnage and radius protection provided Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
 Pass Fail N/A Neutral

Personal Protective Equipment Utilization

12.1	Proper eye protection worn at all times and face protection when needed Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
12.2	Hard hats worn at all times Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
12.3	Reflective vests / high visibility clothing worn at all times Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				



12.4	Hearing protection used around high noise sources above 90 dB Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

12.5	Proper level one or greater gloves worn at all times Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
Pass Fail N/A Neutral

Pedestrian Protection

13.1	Jobsite fence installed, inspected, and maintained around perimeter of project Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

13.2	Proper signage secured at access points / pedestrian walkways Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

13.3	All visitors check in at field office and utilize proper PPE while onsite Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

13.4	Traffic control procedures in place and maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

13.5	Certified flaggers used for traffic control Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
Pass Fail N/A Neutral

Hand and Power Tools

14.1	Hand and power tools inspected an maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations



14.2	Proper guards in place and maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
14.3	Power tools are grounded or double insulated Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
14.4	Tools are being used for their intended use Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
14.5	Whip lines and/or pins are provided for at all air compressor connections Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: 0 0 0 0
Pass Fail N/A Neutral

Flammable and Combustible Substances

15.1	Flammable / combustible liquids are stored and handled properly Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
15.2	All containers are properly labeled / protected where required Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
15.3	Fire extinguisher provided within 50' of storage area(s) Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
15.4	No smoking / open flame signage secured near storage area(s) Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
15.5	Flammable / combustible liquids are not stored within 10' from stairwells, elevators, and exits Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A



Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
Pass Fail N/A Neutral

Signage

16.1	OSHA posters posted on jobsite bulletin board Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

16.2	Exit signs posted and safety awareness / training signs posted throughout the project Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

16.3	Warning signs posted on perimeter fence near gates Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

16.4	Federal posters and anti-harrassment signs posted on jobsite bulletin board Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

16.5	Fire Department Connection signs posted Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

Summary: 0 0 0 0
Pass Fail N/A Neutral

Mobile Equipment

17.1	Daily inspection conducted on all mobile equipment and documentation maintained Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	---	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations

17.2	Fire extinguishers in all mobile equipment Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
------	--	----------------------------------	----------------------------------	---------------------------------

Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations



Inspection

17.3	Owner's manual secured in all mobile equipment Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
17.4	Seat belts functional and worn on mobile equipment (as required) Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				
17.5	Proper attachments used on all mobile equipment Details:	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Activity: 0 Response Changes, 0 Attachments, 0 Photos, 0 Comments, 0 Observations				

Summary: Pass Fail N/A Neutral