



DAHLEEI926QD

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Phone 360-755-1145 Fax 360-755-9722

SAFETY MANUAL



DAHLEEI9260D

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Safety Policy

Property damage, accidents, and industrial injuries create no-win situations for everyone. They cause employees to experience pain, incapacitation and in many instances significant financial losses. The company suffers from both the loss of human and physical resources.

Our goal is to eliminate the development of these undesirable situations.

We intend to provide a safe work environment, establish programs that promote safe work practices, and provide leadership that encourages, guides, instructs and insists upon compliance with our safety policies and procedures.

Employees are expected to cooperate in our commitment by making safety a part of all their work activities and by accepting responsibility for their safety and that of their co-workers.

Support and active participation in our safety commitment is essential. If you have questions, concerns, or suggestions for improvements, please contact us.


Rod Dahl, President
(360) 755-1145 Ext 13

Chris Dahl, Safety Representative
(360) 755-1145 Ext 12



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| | Revision Date: 10-1-16 | Revision: | 1 |

Introduction


The procedures here establish uniform requirements designed to ensure that safety training, operation, and maintenance practices are communicated to and understood by the affected employees. These requirements also are designed to ensure that procedures are in place to safeguard the health and safety of all employees. Throughout this SAFETY PROCEDURES MANUAL certain policies and procedures will refer to a responsible party, not by name, but by title. The following list provides contact information for those responsible parties which are referred to by title.

1. **Safety Representative** Chris Dahl 360.755.1145 Ext 12 Chris@dahlelectric.com
2. **Human Resources Mgr** Brian Rich 360.755.1145 Ext 14 BRich@dahlelectric.com


Safety Representative Responsibilities

The Safety Representative:

1. Is the program coordinator acting as the representative of the president of Dahl Electric, Inc. who has the overall responsibility for the implementation of and compliance with company safety plans and procedures.
2. Will review and update the plans as necessary and has overall responsibility for providing accurate information to jobsite supervisors regarding safety policy and procedures.
3. Is also responsible for verifying that the appropriate special safety equipment for hazardous work has been made available for field workers.
4. Conducts or designates conduct of and is final authority for all investigations
5. Issues a cautionary letter, to any employee involved in a preventable industrial or property damage accident and/or violation of safety policy.
6. Receives notices of subcontractor safety infractions and advises project manager who will issue a cautionary letter, to any subcontractor involved in a preventable industrial or property damage accident and/or violation of safety policy.
7. Shall provide training to all newly hired employees which include: Personal Protective Equipment Policy, including how to access, when it's required, and proper use and fitment of each type of protection.
8. Shall certify employee training and keep records indicating names of employees trained and type of PPE trained and dates of training.
9. Shall provide basic training to all newly hired employees which includes emergency action plan, including how it can be accessed, procedures for reporting an emergency situation, procedures for locating medical treatment facilities, procedures for use of fire extinguishers, first aid kits and spill containment materials, procedures for evacuating to meeting places in the event of an emergency and shall certify employee training and keep records indicating names of employees trained and dates of training.
10. Shall develop, implement, and maintain at each workplace, a written Hazard Communication Program.
11. shall provide basic Hazard Communication training to all newly hired employees,
12. Certify such employee training and keep records indicating names of employees trained, dates of training.
13. Shall provide Lockout/Tag-Out training to all newly hired employees and shall certify employee training and keep records indicating names of employees trained and dates of training.
14. Shall provide basic fire prevention training to all newly hired employees which includes the fire prevention plan, including how it can be accessed, good housekeeping practices, instruction on the use of portable fire extinguishers and shall certify employee training and keep records indicating names of employees trained, dates of training.
15. Shall provide employee training for welding and cutting work and keep records indicating names of employees trained and dates of training.
16. Will inspect fixed-in-place ladders if the Jobsite Supervisor is not available to do so, prior to use.
17. Will receive reports of damaged ladders or damaged aerial lifts and provide for their repair or replacement.

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18. Will provide a written plan for Forklift and powered industrial truck operations upon request to employees, their designated representatives, and any OSHA officials who ask to see it. The Safety Representative will assign the Forklift Training Evaluators. Their duties will consist of completing all practical hands on training, evaluation and presenting particular hazards associated with forklift operations
19. Shall provide training for work with Hand and Portable Power tools to all newly hired employees which includes review of the Basic Safety Rules, review of the general safe practices for Hand Tools and Portable Power Tools,
20. Will provide training for employees who will be required to use powder actuated tools. Employees will be trained by the Safety Representative or a trainer designated by the Safety Representative prior to use. The training will be certified and records kept, indicating names of employees trained and dates of training.
21. Will provide training to all employees who work on or around electrical systems. Only qualified employees are allowed to work on electrical systems.
22. Provides an Assured Equipment Grounding Plan which is available upon request to employees, their designated representatives, and any OSHA officials who ask to see it.
23. Coordinates motorized vehicle policy, program and review of program, driver screening, and collection of all pertinent information and monitors vehicle inspection and maintenance program.
24. Shall provide Hearing Conservation training to all newly hired employees which includes the Hearing Conservation plan, including how it can be accessed, instruction on the use, care and fitment of hearing protectors and shall certify employee training and keep records indicating names of employees trained dates of training.
25. Will ensure that an infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite, is available for the treatment of injured employees, or a person who has a valid certificate in first-aid training from the American Red Cross, or equivalent training that can be verified by documentary evidence, shall be available at the worksite to render first aid, prior to the commencement of each project,
26. Shall see that no employee shall be issued or required to wear a respirator until he validates the need for such protection. When potential hazards which may require such protective equipment are found on jobsites, the safety representative is the contact person and in charge of determining the adequate level of protection necessary for the task. The Safety Representative shall provide training to employees who **voluntarily agree** to work requiring the use of respirators and shall certify employee training and keep records indicating names of employees trained and type of PPE trained and dates of training.
27. Shall provide all newly hired employees with training to recognize fall hazards associated with the following work situations: *Ladders* - fixed, free standing, temporary, or roll away type. *Elevating Personal Platforms* – scaffolds, aerial platforms, scissor lifts, forklift-mounted platforms, cherry pickers, etc. *Elevated Surfaces* – roofs (closer than 6 feet to the edge), catwalks, skylights, boilers, chillers, etc. *Vertical Opening* - ground level entry into excavations, trenches, holes, pits, vessels, and other confined spaces. The Safety Representative shall certify employee training and keep records indicating names of employees trained dates of training.
28. Shall evaluate the safety performance of every employee annually or at any such time as is deemed necessary. A Safety Performance Evaluation Survey will be completed by each employee and reviewed by the Safety Representative. The written findings of the Safety Representative will be provided to the employee. The Safety Representative shall require basic training or re-training based upon the completed Safety Performance Evaluation Survey which may include Specific training relating to L&I claims or OSHA recordable incidents, driver training or driver prohibition, specific training for required certifications or specific training based upon peer reviews. The Safety Representative shall certify employee training and keep records indicating names of employees evaluated and dates of evaluation.

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Human Resources Manager Responsibilities


The Human Resources Manager:

1. Is responsible for maintaining and providing access to the records.
2. Certifies initial training for new hires in basic safety procedures.
3. Maintains records of accidents which result in personal injury in the OSHA 300 log and insures that such accidents are reported to Washington State Labor and Industries.
4. Posts the OSHA 300 logs annually
5. Is responsible for maintaining and providing access to safety records.
6. Is responsible for maintaining and providing access to employees' medical records, kept separately from other employee records.

Jobsite Supervisor Responsibilities


Jobsite Supervisor:

1. Is responsible for training new hires on the jobsite. New employees, as well as employees new to the jobsite are given an introductory training by the supervisor to introduce general hazards and hazards specific to the jobsite.
2. Is responsible to see that and employee is trained to use the tools and equipment he is assigned safely.
3. Discusses accidents and the results of accident investigations at weekly safety meetings in order to avoid future similar incidents.
4. Encourages employees to actively participate in our accident prevention plan by advising him of unsafe conditions, including defective tools and equipment and unsafe practices.
5. Accept and act upon either verbal notice of hazards, or written unsafe practice/condition report forms and provide employees with a timely response.
6. Will advise the Safety Representative to issue a cautionary letter, to any employee involved in a preventable industrial or property damage accident and/or violation of safety policy.
7. Will advise the Safety Representative of subcontractor safety infractions so that the Safety Representative may issue a cautionary letter, to any subcontractor involved in a preventable industrial or property damage accident and/or violation of safety policy.
8. Are alert to employees who may be utilizing prescribed and/or over the-counter medication(s) that could adversely affect job safety or performance.
9. Make certain that employees perform only those tasks that they are trained and qualified to perform and respond with training if an employee reports that they are uncertain of their abilities.
10. Accept reports of illness, property damage, accident, hazardous conditions and act promptly to treat, correct, or prevent further problems.
11. Reviews the site and scope of the work and hazards that will apply to identify the safety equipment required for his crew. Jobsite Supervisors provide employees with equipment and instruct them in its use prior to beginning the job.
12. Are responsible for seeing that employees who are new to the work are trained in safe practices for the work at hand and for seeing that safe work habits are stressed.
13. Shall conduct jobsite specific training for employees upon their assignment to the jobsite, and whenever a new hazard is introduced into an employee's work area.
14. Shall approve locks for lock out procedures which shall be singularly identified with tags and shall be the only devices(s) used for controlling energy. Locks shall NOT be used for other purposes. A tag-out system shall ONLY be used when an energy isolating device is not capable of being locked out and upon the approval of the Jobsite Supervisor. When a tag is used without a lock, it shall be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by using a lock. ONLY the Jobsite Supervisor shall be designated as responsible for the group lockout/tag-out device.

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15. Must inspect fixed-in-place ladders prior to use.
16. Receives notice of damaged ladders and refers them for repair and replacement (damaged ladders must be immediately rendered inoperable).
17. Receives notice of damaged aerial lifts for repair and replacement (damaged equipment must be immediately rendered inoperable).
18. Are designated to implement the assured equipment grounding program.
19. Will ensure the following at the commencement of each project:
 - 19.1. First Aid kits shall be accessible and shall be checked at least weekly to ensure that expended items are replaced.
 - 19.2. Emergency 911 services are available. In areas where 911 are not available, the telephone numbers of the physicians, hospitals or ambulances are clearly posted.
 - 19.3. 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 available.

END SECTION

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|  <small>DAHLEEI926Qd</small> | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 2 Accident Investigation and Reporting | | |
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ACCIDENT INVESTIGATION AND REPORTING

All property damage accidents and work-related injuries, no matter how minor, must be reported promptly, to the Jobsite Supervisor. If the Jobsite Supervisor is not available the Safety Representative or Human Resources Manager will receive the report. Since every accident/injury includes a sequence of contributing factors, it is possible to avoid a repeat of the first event by recognizing and eliminating those factors. During the Jobsite Supervisor's investigation and evaluation, of an accident/injury, he/she must determine the possible consequences, if the unsafe situation that contributed to the accident/injury is not corrected.

Following an accident/injury, an investigation should be conducted, by the Jobsite Supervisor, in conjunction with the involved workers(s) and any witness', to determine the cause(s) of the accident/injury. The findings of the investigation should be documented on a [Report of Accident or Near Miss](#) form. Depending on the circumstances surrounding the incident, additional records may be needed. The supervisor should retain a copy of the completed forms in a jobsite file.

The involved employee(s) should complete a [Report of Accident or Near Miss](#) form. That form and any other documentation required by the company must be provided to the Jobsite Supervisor, as soon after the incident occurs, as possible.

The Jobsite Supervisor should provide verbal and later, written reports and other documentation concerning accidents/injuries to the Dahl Electric business office, as soon after the incident as possible.

Additionally, fatal and serious injury accidents must be immediately reported to Dahl Electric management and governmental agencies. The Jobsite Supervisor must be aware of the proper reporting procedure.

Accident Investigations are conducted by the Safety Representative or his designee within 24 hours of any serious accident.

Accidents and the results of accident investigations are discussed at Safety Committee meetings in order to avoid future similar incidents.

Investigation of accidents and near miss accidents identifies causes and determines modifications in procedure and behavior that will result in accident prevention. After the immediate alterations are made that prevent a similar accident in the future, the Safety Manual provides a form to guide Jobsite Supervisors in making a complete and constructive investigation which can then be used to develop further ways to avoid a similar accident in the future.


Record Keeping Accident investigation results are passed along to the Safety Representative and Safety Committee who use them to modify future training to avoid similar incidents. Accidents that result in personal injury are reported to WA Labor and Industries and recorded in the OSHA 300 log as required. Dahl's Human Resources department maintains these records and is responsible for the required annual posting of OSHA information.

Safety Committee

To help with the detection and elimination of unsafe conditions and work procedures, a Safety Committee will be established with representation from employees and management.

The committee will operate under the following guidelines.

1. Employees shall be represented on the committee
2. The term of an employee on the committee shall be determined as needed.
3. The Safety Representative shall act as the chairperson of the Safety Committee.
4. The committee shall determine the frequency of meetings.
5. The committee shall determine the date, hour, and location of meetings.
6. The length of each meeting shall not exceed one hour except by majority vote of the committee.

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7. The attendance and subjects discussed shall be documented and maintained on file for a period of one year. Copies of the minutes must be provided to
 - 7.1. Officers of the corporation.
 - 7.2. Human Resources Manager.
 - 7.3. Employees by posting on the safety bulletin board.

Activities of the committee.

1. Review accident reports to determine means of elimination.
2. Accept and evaluate employee suggestions.
3. Review job procedures and recommend improvements.
4. Monitor the safety program effectiveness.
5. Promote and publicize safety.

Unsafe Practice/Condition Reporting

Employees are expected to actively participate in our accident prevention plan by advising their Jobsite Supervisor of unsafe conditions, including defective tools and equipment and unsafe practices.


The employee should verbally advise his/her Jobsite Supervisor of hazards or the employee may complete an unsafe practice/condition report form and present it to their supervisor.

Jobsite Supervisors are expected to take appropriate action and provide the employee with a timely response.

Off Work Injury Reporting

The majority of employee injuries happen away from work. Dahl Electric, Inc. requires its employees to complete an [Off Work Injury Report](#) form when they are injured off work. This will let Dahl Electric, Inc. know if the injury is slight enough to continue normal work or if it is too severe.

END SECTION

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| | Section: | | 3 Progressive Discipline for Safety Infractions | |
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Progressive Discipline for Safety Infractions

Employee Safety Infractions

The Jobsite Supervisor will advise the Safety Representative to issue a [Correction Notice](#) form, to any employee involved in a preventable industrial or property damage accident and/or violation of safety policy. The form will discuss the circumstances surrounding the incident and outline a means of prevention.

Should the employee be involved in a second violation and/or accident, within the next six (6) month period, another [Corrective Notice](#) form will be issued and the employee will be suspended from work. The duration of the suspension, between one (1) and five (5) days, will depend on the circumstances surrounding the incident. The form will advise the employee that should a third violation or accident occur, within the next six (6) month period, the employee's employment with Dahl Electric, Inc. may be terminated.

An accident or incident caused by an employee's carelessness, recklessness or negligence may be grounds for immediate termination of employment with Dahl Electric, Inc.

A preventable accident is defined as an occurrence caused by the failure of an employee to do everything reasonably possible to avoid becoming involved in the incident.

Annual physical inspections of employee work areas shall be conducted.

Subcontractor Safety Infractions


The Job Supervisor will advise the Safety Representative of subcontractor safety infractions. The Safety Representative will issue a [Corrective Notice](#) form to any subcontractor involved in a preventable industrial or property damage accident and/or violation of safety policy. The form will discuss the circumstances surrounding the incident, outline means of prevention, and require additional subcontractor support of the safety program.

Should the subcontractor be involved in a second violation and/or accident, within the next six (6) month period, another [Corrective Notice](#) form will be issued and further disciplinary action up to and including the possibility of contract terminations will be pursued.

All subcontracts require compliance with safety rules. Each subcontractor is required to have and implement an Accident Prevention Program that meets OSHA and WISHA requirements.

An accident or incident caused by a subcontractor employee's carelessness, recklessness or negligence will be grounds for immediate suspension of work. There is no tolerance for safety violations. Employees of subcontractors who do not work in a safe manner may be subject to being barred from working on the site.

END SECTION

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| | Section: | 4 Substance Abuse Policy | | |
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Substance Abuse Policy


Objective:

Dahl Electric, Inc. has a strong commitment to provide a safe work environment for its employees and to establish programs that promote high standards of employee health and safety. Consistent with that commitment, this Substance Abuse Policy is established.

Policy:

1. The unauthorized use, sale, transfer or possession of alcohol, drugs, controlled substances and/or mind-altering substances (except the possession or use of prescribed medication verified by a current and properly issued prescription) during work hours, (including meal and rest periods), on Company property, in Company vehicles, or in personal vehicles while conducting Company business, is prohibited. Violation of this section of the policy will result in disciplinary action, which may include termination of employment.
2. Reporting for work intoxicated or becoming intoxicated during work hours, through the use of alcohol, drugs, (including prescribed medication), controlled substances and/or mood-altering substances is prohibited. Violation of this section of the policy will result in disciplinary action, which may include termination of employment.
3. An employee utilizing prescribed and/or over-the-counter medication(s) that could adversely affect job safety or performance must immediately report that fact to his/her supervisor. Knowledge of cautions and warnings, printed on the medication container label, is the sole responsibility of the employee. Consultation with the employees attending physician concerning the affects a substance may have on that employee may be appropriate. Violation of this section of the policy will result in disciplinary action, which may include termination of employment.
4. The employer reserves the right to conduct searches of Company property, vehicles or equipment at any time or place. The employer reserves the right to conduct searches of employees, his/her vehicle or other personal property located on property owned, rented, leased or otherwise controlled by the employer when there is reasonable grounds to believe that employee is in violation of this policy. Personal vehicle and property searches will be conducted in the presence of the effected employee. Failure to cooperate with these procedures will be grounds for dismissal from employment.

END SECTION


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| | Section: | 5 Employee Responsibilities | | |
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Employee Responsibilities

The responsibility of a Dahl Electric Inc. employee shall be to:

- Observe all company safety and health rules and apply the principles of accident prevention in my daily duties.
- Attend safety meetings and training sessions.
- Provide a positive and sincere safety image to my co-workers, especially new employees.
- Immediately report a job-related injury, illness or property damage accident to my supervisor.
- Provide a written accident report, if circumstances warrant.
- Promptly report hazardous conditions and unsafe acts to my Jobsite Supervisor or the Safety Representative.
- ObeY all caution or danger signs, barricades and tags.
- Keep walkways and work areas clear of slipping and tripping hazards.
- Store material in a safe manner. Tie down or support stockpiles to prevent falling, rolling or shifting.
- Follow good housekeeping practices. Clean work area daily.
- Not use compressed air or oxygen to clean dust or other materials from another worker, a work area or myself.
- Use only approved solvent for cleaning purposes.
- Know the location of fire/safety exits and evacuation procedures.
- Keep all emergency equipment, such as, fire extinguishers, fire alarms, and exit doors clear of obstacles.
- Know the location and proper operation procedures for fire suppression equipment.
- Know the location of first aid and other emergency equipment.
- Not report to work under the influence of alcoholic beverages or drugs nor consume them while working.
- Remain in my work area, unless I am instructed otherwise.
- Refrain from fighting, horseplay, or distracting fellow workers.
- Not possess or use a firearm or other weapon, while conducting company business.
- Know the correct use of hand and power tools. Use the correct tool for the job.
- Use only those tools and equipment, that I have been trained and authorized to operate and operate them safely.
- Perform only those tasks that I am trained and qualified to perform. If unsure, I will discuss the task with my supervisor or a more experienced co-worker.
- Secure tools, equipment and material while working on scaffolding, man lifts, platforms, or other elevated areas.
- Use properly grounded or double insulated power tools and equipment.
- Use properly insulated and grounded electrical extension cords.
- Use Ground Fault Circuit Interrupters (GFCI), when necessary.
- Follow proper lifting procedures; get help with heavy or bulky items. Use mechanical lifting equipment, whenever possible.
- Turn off the engine on equipment and vehicles, prior to refueling.
- Ride as a passenger on a vehicle, only if it is equipped with a rider's seat.
- Be alert to see that all guards and other protective devices are properly installed before operating equipment.
- Not wear frayed, torn or loose clothing, jewelry or long unrestrained hair near moving machinery or other sources of entanglement or near electrical equipment.
- Wear clothing that is appropriate for the weather and task.
- Wear a hardhat, when head protection is necessary.
- Use eye and face protection when exposed to flying objects, dust, harmful rays, chemicals, flying particles, when operating powder actuated tools or when exposed to other eye and/or face hazards.
- Wear proper footwear. Sport shoes, sandals and/or similarly lightly constructed footwear are prohibited.
- Use gloves, aprons or other protective devices when handling rough material, chemicals or other dangerous objects.
- Use a respirator when dangerous levels of dust, mist or toxic substances are present. (Refer to the respiratory protection policy)
- Actively support and participate in the company's safety program.

END SECTION


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| | Section: | 6 Code of Safe Work Practices | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Code of Safe Work Practices

This Code of Safe Work Practices is established to provide a general outline of how to work safely.

1. **Accident Prevention** – Everyone must abide by OSHA standards, WISHA standards, and this Safety Procedures Manual. Posters and other safety materials are displayed for your benefit. Read and abide by them.
2. **Job Site** – Good housekeeping is essential. Keep work areas free of debris. Remove or correct any hazards. Never work or pass under suspended loads or equipment.
3. **Work Habits** – Assist other trades when necessary to maintain safe operations. Never place yourself, or allow others to work, in a dangerous position. Use the right tool or equipment for all work. Use of any alcoholic beverage illegal drugs is strictly prohibited on the job. Don't be a party to horseplay. Pranks can be fatal.
4. **Power Tools** – Power tools must be used only by authorized personnel. Know the proper method for using each power tool. Never disable or remove a retractable guard; it is there for your protection. Never use a tool with which you are not experienced. Inspect tools prior to use.
5. **Material Handling** – Lift with your leg muscles. Don't bend over and lift with your back. Learn and practice the proper way to lift or carry materials. Don't operate any type of powered material-handling or material-hoisting equipment unless authorized. Get help handling heavy or bulky loads.
6. **Protective Devices** – Hand or guard rails, protective covers, toe-boards, ramps and safety devices installed on various tools are there for your safety. Don't tamper with, remove or damage these protective devices. Replace, correct or report any unsafe guard or device.
7. **Electrical** – Respect electricity under all circumstances. Never use electrical equipment in areas of excessive moisture unless all safeguards have been taken. Electric power tools are grounded through approved cords, including extensions, for your safety. Never remove or alter polarized cords or plugs.
8. **Flammables, Solvents** – Never use gasoline or other highly volatile liquids for cleaning purposes. Oxygen and acetylene cylinders can be dangerous. Secure cylinders against tipping. Keep any tanks or containers that may contain explosive vapor or liquid away from open flames or sparks.
9. **Underground** – Never enter any underground vault, manhole, silo or other closed area without the express authorization from the Jobsite Supervisor or the Safety Representative.
10. **Accident Reporting** – Report all injuries to the Jobsite Supervisor or Safety Representative immediately.
11. **Personal Protection** – Stay clear of heavy equipment. Remain aware of warning devices such as bells, horns or whistles. Use of personal protective equipment is mandatory where required. Know how to recognize hazards that require personal protective equipment. Never attempt and operation with which you are not familiar. Wear suitable clothing and footwear at all times.
12. **First Aid** – Basic first aid is of value in the event of injury. Never attempt to move a person who may have sustained an injured spine or other internal injury except when they are in imminent danger unless moved. Never place yourself or others in danger.
13. **Safety Meetings** – Toolbox meetings are held for a purpose. Attend willingly. Participate by offering ideas to facilitate an accident free workplace. Accept advice offered by others who may be more experienced.
14. **Hand Tools** – Always use the proper tools and maintain them in good condition. Inspect tools prior to use. Notify the Jobsite Supervisor of unsafe tools and remove them from service.

END SECTION

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|  DAHLEEI926OD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 7 Personal Protective Equipment | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Introduction

Employees are required to use appropriate Personal Protective Equipment (PPE) at all times. Common clothing, including footwear, shall be provided by the employee. All other personal protective equipment shall belong to the company and be made available to employees at no charge.

Content


1. Program Description
2. Training
3. Certification and Record Keeping

1. Program Description

1. Personal Protective Equipment (PPE) shall be used and maintained in a sanitary and reliable condition.
2. Defective or unsanitary PPE, whether provided by the employee or the company, shall not be used.
3. PPE shall be used when the job requires it, in the form of;
 - 3.1. Proper clothing including footwear.
 - 3.2. Eye protection.
 - 3.3. Hand protection.
 - 3.4. Head protection.
 - 3.5. Hearing protection.
 - 3.6. Respiratory protection.
 - 3.7. Fire protection.
4. A certified hazard assessment shall be completed prior to working in a hazardous condition. Certified hazard assessment shall contain the following:
 - 4.1. Certifier's Name
 - 4.2. Date
 - 4.3. Certifier's Signature

2. Training


1. The Safety Representative shall provide training to all newly hired employees which includes:
 - 1.1. This Personal Protective Equipment Policy, including how it can be accessed.
 - 1.2. When PPE is required and the proper use and fitment of each type of protection.
 - 1.3. Instruction on the use, care, life and disposal of PPE.
2. Employees shall be re-trained when any one or more of the following are noted:
 - 2.1. Lack of use or improper use of PPE.
 - 2.2. Changes to the type of PPE.

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|  DAHLEEI926OD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 7 Personal Protective Equipment | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

3. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
 - 1.1. Names of employees trained and type of PPE trained.
 - 1.2. Dates of training.

END SECTION

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|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 8 Accident Prevention Plan | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Dahl Electric Inc. believes that a safe workplace is created when every person is alert to the hazards around them and takes responsibility for removing or minimizing such hazards as they identify them. Identifying hazards requires **education** regarding the dangers that may exist and **vigilance** to identify the hazards when they appear. Taking responsibility entails both working safely and taking action to assure that those around you work safely as well. DEI provides training and tools to promote and support all of our people with their efforts to maintain a safe workplace.

Dahl Electric Inc. is working with PICS (Pacific Industrial Contractor Screening) to create, update, and maintain our Safety Programs. We have a Drug Free policy which is administered by DISA and Drug Free Business and we provide Safety Meeting Outlines for each jobsite as a beginning point for weekly Safety Meetings. Our program of equipment maintenance keeps ladders and other company-provided equipment in good repair. Chris Dahl, Vice-President is our Safety Representative, assisted by a Safety Committee.

Safety Orientation

At time of hire each employee

1. Is provided an overview of our safety program
2. Views safety videos
3. Is given employee handbook and safety trainings
4. Is advised regarding the purpose of and where to find MSDS and Safety Manuals in the office and on the jobsite

Annually or Semi Annually, according to requirements of each program First Aid Classes and Safety Classes are provided. (An example is the C-Stop program.)


Self Inspection, Employee Education and Training -At the beginning of each job:

1. The Job Supervisor reviews the site and scope of the work and hazards that will apply to identify the safety equipment required for his crew. Employees are provided with the equipment and instructed in its use prior to beginning the job. Jobsite Supervisors are responsible for seeing that employees who are new to the work are trained in safe practices for the work at hand. Safe work habits are stressed.
2. Each employee is informed of job specific hazards by Jobsite Supervisor, is advised what safety equipment is required on the jobsite and provided the required equipment, is advised to take an active part in prevention of accidents and advised where to report unsafe conditions or accidents that are identified, is oriented to their specific job on the jobsite
3. On each jobsite the job trailer, job box, or Jobsite Supervisor's vehicle contains a copy of the Job Specific Safety Manual which contains general safety information, job specific issues related to safety, and all forms for reporting incidents. MSDS book is maintained with the Safety Manual and contains product hazard information regarding all chemicals in use on the jobsite.
4. Job Specific Safety Manual with Emergency resource information and any job specific emergency exit information is maintained in the Job Specific Safety Manual and reviewed by the Job Supervisor at weekly safety meetings
5. Identification of unusual hazards and hazardous materials on the job and emergency procedures after accidental exposure are maintained in the job specific safety manual and are presented by the Jobsite Supervisor prior to the start of the job and at weekly safety meetings.
6. Safety Meetings are held at each jobsite weekly, minutes are kept and attendance is logged. Additional meetings are held periodically to cover issues as they come up. When subcontractors are on site they are included in our safety meetings.

Investigation of accidents and near miss accidents identifies causes and determines modifications in procedure and behavior that will result in accident prevention. After the immediate alterations are made that prevent a similar accident in the future, the Safety Manual provides a form to guide Jobsite Supervisors in making a complete and constructive investigation which can then be used to develop further ways to avoid a similar accident in the future.

Record Keeping Accident investigation results are passed along to the Safety Representative and Safety Committee who use them to modify future training to avoid similar incidents. Accidents that result in personal injury are reported to WA Labor and Industries and recorded in the OSHA 300 log as required. Dahl's Human Resources department maintains these records and is responsible for the required annual posting of OSHA information.

END SECTION

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|  | Document Title: | | SAFETY PROCEDURES MANUAL | |
| | Section: | | 9 Emergency Action Plan | |
| | Revision Date: | | 1-1-08 | Revision: |

Introduction

This Emergency Action Plan identifies potential emergency situations and establishes procedures for planning and preparing for emergency situations in the workplace. Education and training are provided to enable all employees to understand this plan.

Content


1. Program Description
2. Training
3. Certification and Record Keeping

1. Program Description

1. Potential emergency situations:
 - 1.1. Injury or illness.
 - 1.2. Fire.
 - 1.3. Hazardous chemical exposures.
 - 1.4. High winds.
 - 1.5. Flood.
 - 1.6. Earthquake.
2. Each workplace location shall plan and prepare for potential emergencies as follows:
 - 2.1. The Jobsite Supervisor shall identify and communicate:
 - 2.1.1. Emergency telephone numbers, if 911 is not available.
 - 2.1.2. Location of medical treatment facilities.
 - 2.1.3. Location of fire extinguishers, first aid kits and spill containment materials.
 - 2.1.4. Evacuation routes and meeting places.

2. Training


1. The Safety Representative shall provide basic training to all newly hired employees which includes:
 - 1.1. This emergency action plan, including how it can be accessed.
 - 1.2. Procedures for reporting an emergency situation.
 - 1.3. Procedures for locating medical treatment facilities.
 - 1.4. Procedures for use of fire extinguishers, first aid kits and spill containment materials.
 - 1.5. Procedures for evacuating to meeting places in the event of an emergency.
2. Employees shall be re-trained when any one or more of the following are noted:
 - 2.1. Initially when the plan is developed.
 - 2.2. Whenever the employee's responsibilities change.
 - 2.3. Whenever the plan is changed.

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| | Section: | 9 Emergency Action Plan | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

3. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
 - 1.1. Names of employees trained.
 - 1.2. Dates of training.

END SECTION

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|  | Document Title: | | SAFETY PROCEDURES MANUAL | |
| | Section: | | 10 Hazard Communication Plan | |
| | Revision Date: | 06-17-14 | Revision: | 0 |

INTRODUCTION

Dahl Electric Inc. has developed a hazard communication program fully compliant with the Global Harmonization Standard (GHS) to enhance our employees' health and safety. We intend to provide information about chemical hazards and the control of hazards via our comprehensive hazard communication program, which includes container labeling, Safety Data Sheets (SDS) and employee training.

Project management will ensure that all hazardous chemicals intended for use at each of our job sites are identified. This involves a review of the container labels and Safety Data Sheets to determine which products are hazardous and need to be included on our program.

The following program outlines how we will accomplish this plan:

1. CONTAINER LABELING:

A. It is the policy of this company that no container of hazardous chemicals will be released for use until the following label information is verified:

- Containers are clearly labeled with a harmonized signal word, pictogram and hazard statement for each hazard class and category. Precautionary statements must also be provided.
- The name and address of the manufacturers are listed.

B. To further ensure that employees are aware of the chemical hazards of materials used in their work areas, all secondary containers will also be labeled with an extra copy of the original manufacturer's label.

C. This responsibility has been assigned to Journeyman, Job-Site Safety Supervisors, Project Managers, and the Company Safety Coordinator. The responsibility will be assigned as follows:

1. - Journeyman

No chemicals or hazardous materials will leave Dahl Electric Inc. shop without proper labels.

2. - Job-Site Safety Supervisors

Shall check all chemicals or hazardous materials on the job site and be sure they are properly marked, have the appropriate SDS sheets and an inventory list of all chemicals posted at job site.

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3. Project Managers

Shall request SDS sheets on all chemicals or hazardous materials ordered for the job.

1. SAFETY DATA SHEETS (SDS)

A. Safety Data Sheets (SDS) are informational bulletins supplied by chemical manufacturers or distributors. Copies of SDS's for all hazardous chemicals to which employees may be exposed are kept in all job offices or superintendent's company vehicle.

B. The SDS's will be available at the job site for the employee's use and review.

C. SDS's are available to all employees for review. If SDS's are not available or new chemicals in use do not have SDS's, please immediately contact the company Safety Coordinator.


2. EMPLOYEE TRAINING AND INFORMATION

A. Employees are to attend a health and safety orientation for initial Hazard Communication Training. New employees are to be oriented prior to starting work.

The training will be on the following:

- An overview of the Hazard Communication requirements.
- Location and availability of our written hazard program and Safety Data Sheets.
- Physical and health effects of the hazardous chemicals.
- Methods and observation techniques used to determine the presence or release of hazardous chemicals in the work area.
- How to lessen or prevent exposure to these hazardous chemicals through personal protective equipment and usage of controlling work practices.
- Steps the company has taken to lessen or prevent exposure to these chemicals.
- Emergency procedures to follow if our employees are exposed to these chemicals.
- How to read labels and review SDS's to obtain appropriate hazard information.

NOTE: It is critically important that all of our employees understand the training. If you have any additional questions, please contact the Safety Coordinator.

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B. When new chemicals are introduced, the job superintendent will review the employee training and information section to ensure that all new items are presented during the jobsite safety meeting.

3. HAZARDOUS NON-ROUTINE TASKS

A. Periodically, employees are required to handle chemicals for hazardous non-routine tasks. Prior to starting work on such projects, each affected employee will be given information by their supervisor about hazards to which they may be exposed during such an activity.

B. This information will include:

- Specific chemical hazards
- Safety measures which must be utilized.
- Measures the company has taken to lessen the hazards, including ventilation, respirators, presence of another employee and emergency procedures.

4. INFORMING OTHER CONTRACTORS


A. To ensure that other contractor's employees have access to the SDS's for the hazardous chemicals or products used at multi-employer job sites, it is the responsibility of the project manager/superintendent to provide the contractors the following information:

- The name and location of the hazardous chemicals to which they may be exposed while on the jobsite. Any recommendations or appropriate protective measure to be taken by the other contractor's employees.

NOTE: The specific method a construction employer uses to inform other contractors at the same jobsite is not prescribed by the rules. It is important that the prime and subcontractors arrange specific procedures to inform one another about their hazard communications programs. The methods should be designed to fit the type of jobsite operations being conducted. Dahl Electric Inc. requires that this policy be addressed at construction meetings, owner meetings and weekly job meetings or at any time the coordination of safety is needed between the different parties involved in the job.

5. PROGRAM EFFECTIVENESS

A. If anyone has questions about this plan, please contact the Company Safety Representative. Our plan will be monitored by the Company Safety Representative to ensure that the policies are carried out and that the plan is effective. When necessary, the program will be modified to address any program deficiencies.

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|  | Document Title: SAFETY PROCEDURES MANUAL | | |
| | Section: 11 Lockout / Tag-Out Procedure | | |
| | Revision Date: 12-10-15 | Revision: | 0 |

Introduction


Machines and equipment capable of causing injury due to unexpected re-energization or start up of the machinery and equipment, or the release of stored energy during servicing and maintenance shall be locked out/tagged out in accordance with this policy.

Content

1. Program Description
2. General Lockout Procedures
3. Training
4. Certification and Record Keeping

1. Program Description

1. The potential sources of energy from equipment and process include, but are not limited to, the following:
 - 1.1. Electricity.
 - 1.2. Pneumatic and hydraulic lines in the machinery.
 - 1.3. Spring tension or compression.
 - 1.4. Compressed air.
 - 1.5. Steam and condensate lines under pressure.
 - 1.6. Suspended parts.
 - 1.7. Chemical, Nuclear, Thermal, Gas, Water, Vacuum.
2. Locks and tags shall be provided at no cost to each employee from his/her Jobsite Supervisor for the purpose of isolating, securing or blocking of machines or equipment from energy sources.
3. Locks shall be singularly identified with tags and shall be the only devices(s) used for controlling energy. Locks shall NOT be used for other purposes and shall be approved by the Jobsite Supervisor.
4. Equipment specific energy control procedures shall be developed, documented and utilized for the control of potentially hazardous energy except when all of the following elements exist:
 - 4.1. The machine or equipment has no potential for stored or residual energy or re-accumulation of stored energy after shut down which could endanger employees.
 - 4.2. The machine or equipment has a single energy source which can be readily identified and isolated.
 - 4.3. The isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment.
 - 4.4. The machine or equipment is isolated from that energy source and locked out during servicing or maintenance.
 - 4.5. A single lockout device will achieve a locked-out condition.
 - 4.6. The lockout device is under the exclusive control of the employee performing the servicing or maintenance.
5. Employees shall be trained in **General Lockout Procedures** (below) and training records shall be kept.

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General Lockout Procedures

The following general procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start up of the machine or equipment or release of stored energy could cause injury.


All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized employee(s) is required to perform the lockout in accordance with this general procedure or equipment specific procedure. All employees, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance shall not attempt to start, energize, or use that machine or equipment.

Sequence of Lockout

1. Notify all affected workers that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.
2. The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
3. If the machine or equipment is operating, shut it down by the normal stopping procedure (e.g., depress the stop button, open switch, close valve).
4. De-activate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).
5. Lockout the energy isolating device(s) with assigned individual lock(s).
6. Dissipate or restrain stored or residual energy (e.g., capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure) using methods such as grounding, repositioning, blocking or bleeding down.
7. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate. **CAUTION:** Return operating control(s) to neutral or "off" position after verifying the isolation of the equipment.
8. The machine or equipment is now locked out.

Restoring Machines or Equipment to Normal Production Operations

1. Check the machine or equipment and the immediate area around the machine to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
2. Check the work area to ensure that all employees have been safely positioned or removed from the area.
3. Verify that the controls are in neutral.
4. Remove the lockout devices and reenergize the machine or equipment. **Note:** The removal of some forms of blocking may require re-energizing of the machine before safe removal.

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- Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

Testing or Positioning of Machines, Equipment or Components

In situations in which lockout or tag-out devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine, equipment or component thereof, the following sequence of actions shall be followed:

- Clear the machine or equipment of tools and materials;
- Remove employees from the machine or equipment area;
- Remove the lockout or tag-out device;
- Energize and proceed with testing or positioning; and
- De-energize all systems and apply energy control measures.

Tag-Out Procedures

A tag-out system shall ONLY be used when an energy isolating device is not capable of being locked out and upon the approval of the Jobsite Supervisor.

When a tag is used without a lock, it shall be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by using a lock. Additional safety measures include 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.

Obsolete/Abandoned Equipment

All obsolete/abandoned equipment that still has the ability to function shall be locked out and tagged with a condemned equipment tag. All power sources for this equipment shall be disconnected and the equipment removed from the facility within a reasonable time frame.

Refitting Equipment


All machinery, equipment and processes must be capable of being locked out. An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

Whenever replacement or major repair, renovation or modification of a machine or equipment is performed, and whenever new machines or equipment are installed, energy isolating devices for such machine or equipment shall be designed to accept a lockout device.

Removing Abandoned Locks/Tags

Each lockout or tag-out device shall ONLY be removed from each energy isolating device by the employee who applied the device.

Exception: When the authorized employee who applied the lockout or tag-out device is not available to remove it, that device may be removed **ONLY** by the Jobsite Supervisor.

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Group Lockout

When servicing and/or maintenance is performed by a crew or group of trades, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tag-out device.

Group lockout devices shall be used in accordance with the general procedures listed in this policy and include the following specific requirements:

1. **ONLY** the Jobsite Supervisor shall be designated as responsible for the group lockout/tag-out device;
2. The hazardous energy control procedure shall be reviewed with each group member;
3. If more than one crew or trade is involved, one authorized employee shall coordinate the lockout/tag-out to ensure that all control measures are applied and there is continuity of protection for the group; and
4. Each authorized employee shall affix a personal lockout or tag-out device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work, and shall remove those devices when he or she stops working on the machine or equipment being serviced or maintained.


1. Training

1. The Safety Representative shall provide Lockout / Tag-Out training to all newly hired employees which includes:
 - 1.1. This Lockout / Tag-Out Procedure, including how it can be accessed.
 - 1.2. Recognition of hazardous energy sources.
 - 1.3. Type and magnitude of the energy available in the workplace.
 - 1.4. Purpose and use of the energy control procedure.
 - 1.5. Methods and means necessary for energy isolation and control.
 - 1.6. Nature and limitations of tags.
2. Employees shall be re-trained when any one or more of the following are noted:
 - 2.1. Deficiencies in training.
 - 2.2. Changes to the workplace.
 - 2.3. Fire protection systems or equipment changes that render previous training obsolete.

2. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
 - 1.1. Names of employees trained.
 - 1.2. Dates of training.
2. Document annual inspections of the Lockout/Tag-Out procedure and update as required.

END SECTION

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|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 12 Confined Spaces | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Confined Space Entry

PURPOSE

To assure that all feasible precautions and required safeguards are met to prevent exposures to toxic gases, oxygen deficiency, flammable atmospheres, and accidents related to entering confined spaces.

POLICY

Before any employee enters a confined space they shall be trained in confined space entry procedures, conducting pre and continual atmospheric testing, and recognition, evaluation and control of suspected or known hazards associated within a confined space. No work shall be performed in an IDLH atmospheric condition.

DEFINITIONS

Confined Space: Any space having a limited means of egress, which is subject to the accumulation of toxic or flammable contaminants or an oxygen deficient atmosphere. Confined spaces include but are not limited to: storage tanks, process vessels, bins, boilers, ventilation or exhaust duct, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than four feet in depth, such as pits, tubes, vaults, or vessels.

Oxygen Deficient Atmosphere: An atmosphere that contains less than 19.5% oxygen by volume.

Toxic Atmosphere: An atmosphere that has contained liquids, vapors, gases or solids of toxic, corrosive, or irritants nature (or if the confined space has been fumigated). Greater than TLV level of specific toxic substance.

Flammable (explosive) Atmosphere: An Atmosphere that has contained flammable liquids, vapors or gases greater than 10% of the LFL.

Qualified Person: A qualified person is one who, by reason of training or experience, is familiar with the operation being performed.

TLV: Threshold Limit Value of toxic, corrosive or irritant contaminants.

LFL: Lower Flammable Limits (may also be seen as LEL or Lower Explosive Limit) of flammable liquids, gases and volatile solids.

Entry Permit: Document placed at the opening to a confined space outlining location, equipment monitor readings, person entering, stand by person, times and date of operation, and type of work going on in the confined space.


Standby Person: A person that is trained in the procedures of confined space entry, and assigned to remain on the outside of the confined space and to be in communication with those working inside.

PPM: Parts Per Million of substances.

PROCEDURE

Pre-Entry:

1. The supervisor in charge of the job shall review the procedures for entering a confined space with each member entering a confined space and any problems shall be referred to the Safety Supervisor.
2. Supervisor shall secure entry permit and fill out the top portion at the safety office.
3. Supervisor shall secure an atmosphere monitor from the safety office.
4. All pre-work procedures shall be completed before work commences within the confined space. Pre-work procedures include but are not limited to:
 - 4.1. Proper ventilation
 - 4.2 Stand-by person
 - 4.3 Adequate lighting/emergency lighting.
 - 4.4 Life line
 - 4.5 Communications
 - 4.6 Personal protective equipment
 - 4.7 Fire extinguisher
 - 4.8 Lockout/Tag-out of equipment
5. After all pre-work procedures have been completed the supervisor shall do atmospheric testing of the confined space. Atmospheric testing shall be done with one of the following monitors: National Dragger

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model 180 oxygen Monitor, or a gas tech ox 80 or ox 82 monitor. Atmospheric testing results shall be recorded on the permit and the Supervisor will sign the permit.

6. All persons entering the confined space and the stand-by personal shall sign in on the permit.
7. The permit shall be hung at the opening of the confined space.

Working in Confined Space:

1. When initial monitoring is completed the monitor shall stay with the employees working in the confined space. The monitor shall be kept in close proximity of employee, so the alarm can be heard.
2. Work may commence at this time.
3. If the alarm is activated, monitor malfunction, ventilation discontinues or lighting, everyone shall evacuate the confined space until the problem is solved.

Completion of Work:

1. After completion of work or end of the workday, all persons working in the confined space and stand-by person shall sign out of the permit.
2. All monitors and permit shall be returned to the safety office.


Training Procedures:

1. Training shall be conducted prior to initial assignment, prior to a change in assigned duties, if a new hazard has been created and/or if special deviations have occurred.
2. **Attendant shall be trained in the following areas:**
 - 2.1. Permit system
 - 2.2. Testing and monitoring
 - 2.3. Set up of proper ventilation
 - 2.4. Set up of adequate lighting
 - 2.5. Proper use of lifeline
 - 2.6. Determining proper type of communications system to be used.
 - 2.7. Correct use of fire extinguisher
 - 2.8. Lockout/Tag-out procedures
 - 2.9. Emergency procedures
3. **Person entering confined space:**
 - 3.1. Use of personal protective equipment
 - 3.2. Set up and use of proper ventilation
 - 3.3. Permit system
 - 3.4. Testing and monitoring
 - 3.5. Set up of adequate lighting
 - 3.6. Proper use of lifelines
 - 3.7. Determining proper type of communications system to be used
 - 3.8. Lockout/Tag-out procedures
 - 3.9. Emergency procedures
 - 3.10. Hazards associated within a confined space.
4. **Retraining**
 - 4.1. The Safety Representative shall provide training to all newly hired employees which includes review of the basic information above.
 - 4.2. Changes to the workplace or assigned duties.

Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
 - 1.1. Names of employees trained.
 - 1.2. Dates of training.

END SECTION

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|  | Document Title: | | SAFETY PROCEDURES MANUAL | |
| | Section: | | 13 Excavation and Trenching | |
| | Revision Date: | | 06-17-14 | Revision: |

Introduction Excavation, which includes trenching, may occur on the jobsite and may be performed by the owner, general contractor, another subcontractor, or by us. Employees performing excavation work must be trained in safe excavation practices. Employees working in or around excavated areas must be trained to recognize the potential hazards associated with working in excavated areas.


Content

1. Program Description
2. Training
3. Certification and Record Keeping

1. Program Description

Requirements for employees **performing** excavation work:

1. No excavation will be performed to a depth greater than 36 inches.
2. All surface encumbrances that are located so as to create a hazard to employees shall be removed, or supported, to safeguard employees.
3. Underground Installations:
 - 3.1. The location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be located prior to opening an excavation.
 - 3.2. Utility companies or owners shall be contacted within established or customary local response times, advised of the proposed work, and asked to locate the underground utility installation prior to the start of actual excavation.
 - 3.3. When excavation operations approach the location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.
 - 3.4. While the excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard employees.
4. Underground installations:
 - 4.1. All surface encumbrances that are located so as to create a hazard to employees shall be removed, or supported, to safeguard employees.
 - 4.2. The location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be located prior to opening an excavation.
 - 4.3. Utility companies or owners shall be contacted within established or customary local response times, advised of the proposed work, and asked to locate the underground utility installation prior to the start of actual excavation.
 - 4.4. When excavation operations approach the location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.
 - 4.5. While the excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard employees.
5. Temporary heating devices operated and maintained according to the manufacturer's specifications and inspected to ensure:

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2. Training

1. The Safety Representative shall provide training to all employees involved in excavation and trenching which includes:
 - 1.1. This excavation and trenching information, including how it can be accessed. .
 - 1.2. Instruction on marking and protecting excavated areas to keep workers and the public safe from falls.
2. Employees shall be re-trained when any one or more of the following are noted:
 - 2.1. Deficiencies in training.
 - 2.2. Changes to the workplace.
 - 2.3. Equipment changes that render previous training obsolete.

3. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
 - 1.1.1. Names of employees trained.
 - 1.1.2. Dates of training.

END SECTION

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|  DAHLEEI926OD | Document Title: | | SAFETY PROCEDURES MANUAL | |
| | Section: | | 14 Welding and Cutting | |
| | Revision Date: | | 1-1-08 | Revision: |

Introduction

Employees using welding and cutting equipment must be trained in the proper use of such equipment as well as Fire Protection and Prevention and the use of Personal Protective Equipment.

Content

1. Program Description
2. Training
3. Certification and Record Keeping

1. Program Description

The proper procedures for handling and using welding and cutting equipment include:

1. Gas Welding
 - 1.1. Cylinders must be kept vertical and valve protection caps must be in place and secure during storage and transportation. Transportation of more than 1000 lbs of compressed gas requires a permit.
 - 1.2. Compressed gas cylinders must be secured in an upright position at all times.
 - 1.3. Keep cylinders at a safe distance from welding and cutting operations to avoid ignition from sparks, hot slag or flame.
 - 1.4. Inspect cylinders prior to use. Damaged or defective cylinders may not be used and must be taken out of service.
2. Stick / MIG / TIG
 - 2.1. Use only approved manual electrode holders.
 - 2.2. Any parts that pass through the manual portion of the welder or cutter shall be properly insulated and grounded.
 - 2.3. All cables shall be properly insulated and grounded.
 - 2.4. Ensure ground return cable to meet or exceed the specified maximum output capacity of the welding or cutting unit that it services.
 - 2.5. Do not expose electrodes to water.
 - 2.6. Turn off welder when leaving immediate work area.
 - 2.7. Remove electrode from welder when finished working.
 - 2.8. Keep cylinders at a safe distance from welding and cutting operations to avoid ignition from sparks, hot slag or flame.
 - 2.9. Inspect cylinders prior to use. Damaged or defective cylinders may not be used and must be taken out of service.
3. Personal Protective Equipment
 - 3.1. Welding gloves shall be worn when welding.
 - 3.2. Flameproof leather apron or shoulder apron may be required for further protection from heat and flames.
 - 3.3. An approved head protection device (such as a welding hood) must be worn throughout operation of welding / cutting equipment.

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3.4. Clothing must be clean and free from grease or oil to avoid combustibility.

3.5. All cables shall be properly insulated and grounded.

4. Fire Protection and Prevention

4.1. Inspect work area prior to welding / cutting. Remove all flammable materials or detachable parts from the area of the work.

4.2. Do not weld, cut or heat anywhere that a flammable compound is present or is capable of being present.

4.3. Verify that fire extinguishing equipment is present prior to welding / cutting in the area.

5. Ventilation

5.1. Inspect work area prior to welding / cutting to ensure proper ventilation.

5.2. Contaminated air must be exhausted into open air clear of the source of intake air.

5.3. All replacement air must be clear and breathable.

2. Training

1. Training consists of:

1.1. Review and understanding of the Program Description above which outlines the proper procedures for handling and using welding and cutting equipment.

1.2. Fire Protection and Prevention training.

1.3. Personal Protective Equipment training.


3. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:

1.1. Names of employees trained.

1.2. Dates of training.

END SECTION

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|---|------------------------|--|------------------|----------|
|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 15 Ladders, Scaffolds, Aerial Lifts | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Introduction: Employees working on ladders, scaffolds or aerial lifts must be trained in their use. Additionally, use of this equipment which creates a fall hazard of six (6) feet or greater shall require fall protection training.

Content

1. Ladder Safety
2. Scaffold Safety
3. Aerial Lift Safety
4. Training
5. Certification and Record Keeping

1. Ladder Safety

1. Fixed-In-Place Ladders


- 1.1. Fixed-in-place ladders must be inspected by the Jobsite Supervisor or Safety Representative prior to use.
- 1.2. Fixed-in-place ladders more than twenty (20) feet tall will be equipped with fall cages, wells or fall arrest systems.
- 1.3. Users will inspect fixed-in-place ladders prior to use. Damaged ladders must be immediately rendered inoperable, tagged, and reported to the Field Supervisor or Safety Representative for repair or replacement.

2. Portable Ladders

- 2.1. ONLY FIBERGLASS PORTABLE LADDERS MAY BE USED.
- 2.2. NO WOOD OR METAL PORTABLE LADDERS MAY BE USED. ALL VIOLATIONS ARE SUBJECT TO DISCIPLINE.
- 2.3. Portable ladders must be rated 1A or stronger.
- 2.4. Users will inspect portable ladders prior to use. Damaged ladders must be immediately removed from service, tagged, and returned to the Field Supervisor or Safety Representative.
3. All ladders shall meet OSHA/ANSI specifications. Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced, when the ladder is in position for use.
4. All ladders shall extend a minimum of 3 feet above the top of the upper landing surface.
5. All ladders shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one-quarter of the working length of the ladder. (The distance along the ladder between the foot and the top support.) **Note:** 4:1 ratio
6. All ladders shall be used only for their intended purpose.
7. All employees of Dahl Electric Inc shall use ladder safe work practices, these include but are not limited to the following:
 - 7.1. Do not stand on the top two rungs of a step ladder.
 - 7.2. Face the ladder while ascending or descending.
 - 7.3. Do not carry objects that could cause injury in the event of a fall.

2. Scaffold Safety

1. Only trained employees are allowed to erect or modify scaffold. Violations are subject to disciplinary action.
2. All scaffolding shall be inspected by a competent person prior to use. Damaged or improperly erected scaffold must be immediately tagged as unsafe equipment and reported to the Field Supervisor or Safety Representative for repair or replacement.

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3. Fall protection is required whenever work is performed in areas 6 feet above its surroundings.
4. Each employee who performs work while on a scaffold shall be trained when hired:
 - 4.1. To recognize electrical hazards, fall hazards and falling object hazards associated with the type of scaffold being used.
 - 4.2. The correct procedures for dealing with electrical hazards and for erecting, maintaining, and disassembling the fall protection systems and falling object protection systems being used.
 - 4.3. The proper use of the scaffold, and the proper handling of materials on the scaffold.
 - 4.4. The maximum intended load and the load-carrying capacities of the scaffolds used.
 - 4.5. The use of “UNSAFE EQUIPMENT” tags and mandatory compliance.
 - 4.6. Only trained employees are allowed to erect or modify scaffold. Violations are subject to disciplinary action.
5. Employees shall be re-trained when any one or more of the following are noted:
 - 5.1. Deficiencies in training.
 - 5.2. Changes to the workplace, type of scaffold, fall protection, or falling object protection.
 - 5.3. Fall protection systems or equipment changes that render previous training obsolete.

3. Aerial Lift Safety

1. Only trained employees are authorized to operate aerial lifts.
2. Users will inspect aerial lifts prior to use. Damaged aerial lifts must be immediately rendered inoperable and reported to the Field Supervisor or Safety Representative for repair or replacement.
3. Fall protection is required whenever work is performed in areas 6 feet above its surroundings.

4. Training

1. Each employee who performs work while on a ladder shall be trained when hired:
2. In the selection, inspection and use of fixed and portable ladders
3. Employees shall be re-trained when any one or more of the following are noted:
 - 3.1. Deficiencies in training.
 - 3.2. Fall protection systems or equipment changes that render previous training obsolete.
4. Each employee who performs work while on a scaffold shall be trained when hired:
 - 4.1. To recognize electrical hazards, fall hazards and falling object hazards associated with the type of scaffold being used.
 - 4.2. The correct procedures for dealing with electrical hazards and for erecting, maintaining, and disassembling the fall protection systems and falling object protection systems being used.
 - 4.3. The proper use of the scaffold, and the proper handling of materials on the scaffold.
 - 4.4. The maximum intended load and the load-carrying capacities of the scaffolds used.
 - 4.5. The use of “UNSAFE EQUIPMENT” tags and mandatory compliance.
 - 4.6. Only trained employees are allowed to erect or modify scaffold. Violations are subject to disciplinary action.
 - 4.7. Employees shall be re-trained when any one or more of the following are noted:

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4.7.1. Deficiencies in training.

4.7.2. Changes to the workplace, type of scaffold, fall protection, or falling object protection.

4.7.3. Fall protection systems or equipment changes that render previous training obsolete.

5. Employees who will be required to operate aerial lifts will be trained by the Safety Representative or a trainer designated by the Safety Representative prior to use.

6. Employees shall be re-trained when any one or more of the following are noted:

6.1. Deficiencies in training.

6.2. Fall protection systems or equipment changes that render previous training obsolete.

6. Certification and Record Keeping

1. Each employee who performs work while on a ladder shall be trained when hired:


1.1. In the selection, inspection and use of fixed and portable ladders.

2. Employees shall be re-trained when any one or more of the following are noted:

2.1. Deficiencies in training.

2.2. Fall protection systems or equipment changes that render previous training obsolete.

END SECTION

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|---|-----------------|---------------------------------------|-----------|------------|
|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 16 Asbestos and Lead Awareness | | |
| | Revision Date: | 2-15-11 | Revision: | 1.1 |

At no time are our employees allowed or expected to handle or abate any materials containing asbestos. We will only do work in areas suspected of lead containing materials if we have documentation that the area has been abated by a qualified abatement contractor

Dahl Electric is NOT an abatement contractor; therefore, we are not equipped or trained to deal with materials containing Asbestos. If an employee is suspicious of asbestos in any material they are working with, they are instructed to leave the material and the area and report the material to their supervisor. At that time, the supervisor will call in an abatement contractor, if necessary, to remove/ abate the material.

Asbestos Awareness

This safety guideline is intended to provide safety information to all **Dahl Electric** employees regarding asbestos that adequate measures can be taken to limit exposures through controls in the workplace.

NOTE: If Dahl Electric employees are to work in areas where the contracting company has identified asbestos, these areas will be disclosed to us and rendered safe before work will begin. Dahl Electric does not knowingly allow employees to work in areas where they will have exposure to asbestos. Any employee who knowingly enters a restricted asbestos area will be disciplined for their unsafe behavior.

1. GENERAL

Asbestos that may exist in refineries or other customer workplaces includes certain gaskets, brake linings, valve packing and old insulation.

Since non-asbestos insulation is being used in most workplaces on new work installations, the highest probability for exposure will come during demolition or old insulation removal. However, Asbestos-containing material may be encountered in the following forms:

Valves, vessels, piping insulation, insulation cement, mastic, floor and roof tiling, transit wall siding, caulking, and automobile brake linings.

All asbestos removal within a refinery or other workplace must be done by certified people who are licensed to remove asbestos. No Dahl Electric employee is to work on any piping or vessel that contains "asbestos containing materials" unless properly protected and/or the material is encapsulated and will not fragmentize or peel off when working on it.


Asbestos is widely used, mineral-based material that is resistant to heat and corrosive chemicals. Depending of the chemical composition, fibers may range in texture from coarse to silky. The properties which make asbestos fibers so valuable to industry are its high tensile strength, flexibility, heat and chemical resistance, and good frictional properties.

2. WORK PRACTICES

Dahl Electric employees are not to work on asbestos containing equipment or materials. If employees become aware of any potential exposure to asbestos, they are to immediately stop work and notify their supervisor/foreman. The supervisor/foreman is then responsible to inform the office for further information, but in no case allow work to proceed until the exposure to asbestos has been abated.

3. HEALTH HAZARDS

Asbestos fibers are carried into the body as airborne particles. These fibers can become embedded in the tissues of the lung and digestive system. Once the fibers become trapped in the lung's alveoli (air sacs), they cannot be removed.

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Years of exposure to asbestos can cause a number of disabling and fatal diseases. Among these is asbestosis, an emphysema-like condition, lung cancer; mesothelioma, a cancerous tumor that spreads rapidly in the cells of membranes covering the lungs and body organs; and gastrointestinal cancer which is caused by ingesting asbestos-contaminated food.

Recognizing the danger of asbestos levels in the workplace, the Occupational Safety and Health Administration developed a more protective regulation that reduces the permissible exposure limit and prescribes a separate standard for general industry and for construction.

Short term affects (acute)

May cause irritation and itching to the skin, coughing may occur.

Long term effects

Over exposure can result in lung cancer. Common symptoms include difficulty in breathing (if you climb a flight of steps and are out of breath) cough chest pains, clubbing of the fingers, (this common in advanced stages), risk for lung cancer is or multiplied if the worker exposed to asbestos also smokes.

4. WORK PRACTICES

Although work with asbestos is within our scope, Dahl Electric employees should be aware of the following safe practices. To help reduce worker exposure to airborne fibers, asbestos must be handled, mixed, applied, removed, cut, scored or otherwise worked in a wet state. This “wet” method must also be used when products containing asbestos are removed from bags, cartons, or containers. If this not possible, removal must be done in an enclosed or well-ventilated area.

Asbestos containing materials must not be applied by spray methods. Compressed air can be used to remove asbestos containing materials only if the compressed air is used in conjunction with an enclosed ventilated system designed to capture the dust cloud created by the compressed air.

5. HOUSEKEEPING

All surfaces must be maintained as free as practicable of accumulations of asbestos containing dust and waste. Floors and other surfaces contaminated with asbestos should only be cleaned by vacuuming and/or wet cleaning methods. Where vacuuming and/or wet cleaning is not feasible, shoveling, dry sweeping and dry clean-up of asbestos may be used. The use of compressed air for cleaning purpose is prohibited. Asbestos waste, scrap, debris, bags, containers, and equipment must be disposed of in sealed impermeable bags or containers.

6. METHODS OF COMPLIANCE

OSHA requires that to that extent feasible, engineering and work practice controls must be used to reduce employee exposure to Asbestos to within the PEL. Respirators may be used where engineering controls have been instituted but are insufficient to reduce exposure to the required level. Employers must establish and implement a written program to reduce employee exposure to or below the PEL by means of engineering and work practice controls and by the use of respirators.


OSHA also requires that a written asbestos safety program be available upon request to the Assistant Secretary for the Occupational Safety and Health Administration (OSHA), the Director of the National Institute for Occupational Safety and Health (NIOSH), employees and employee representatives. These plans must be reviewed and updated as necessary to reflect significant changes in the compliance program. Employee rotation cannot be used as a means to compliance with the permissible exposure limit.

7. TRAINING

All employees will be provided awareness training in this program in order to be familiar with the potential hazards and proper safe work procedures to follow if exposed to this health hazard.

Training and information will be provided for all employees with potential for exposure to asbestos. Training will inform exposed employees of:

1. Specific hazards associated with their work environment,
2. Protective measures which can be taken,
3. Danger to their bodies (including their reproductive systems), and
4. Their rights under the standard.

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| | Revision Date: | 2-15-11 | Revision: | 1.1 |

Lead Awareness

This safety guideline is intended to provide suitable information to all **Dahl Electric** employees regarding the potential effects of Lead and where lead may be found so that adequate measures can be taken to limit exposures through controls in the workplace. If an employee suspects lead in any material they are working with, they are instructed to use their good judgment and follow the precautions described here or to leave the material and the area and report the material to their supervisor. In extreme cases, the supervisor will call in an abatement contractor to remove/abate the material.

1. GENERAL

The objective of this guideline is to prevent absorption of harmful quantities of lead. The guideline is intended to protect employees from the immediate toxic effects of lead and from the serious toxic effects that may not become apparent until years of exposure have passed.

2. CHARACTERISTICS & WHERE IT CAN BE FOUND

To understand why lead is so hazardous, it is important to know what it is, the hazardous effects on people, and which materials do or may contain lead. Once this is understood, employees will gain a respect for the safety guidelines set forth in this policy.

What Is It?

Pure lead (Pb) is a heavy metal and is a basic chemical element. It can combine with various other substances to form numerous lead compounds.

Where Can It Be Found?

Lead can be found in:

1. Old glossy paints used on walls and pipe.
2. Building and roof metal support frames.

Report to the Contracting Company's Project Manager anytime you suspect lead-containing materials that may not have been disclosed:

1. Cracked or peeling paint,
2. Visible paint dust, grindings, or shavings.

3. HEALTH EFFECTS:

1. Ways in which lead enters your body.


Lead can be absorbed into your body by inhalation (breathing) and ingestion (eating). When lead is scattered in the air it can be inhaled and absorbed through your lungs and upper respiratory tract. Inhalation of airborne lead is generally the most important source of occupational lead absorption. You can also absorb lead through your digestive system if lead gets into your mouth and is swallowed.

Hazards encountered with lead occur when:

- ◆ Inhaling lead as a dust, fume or mist.
- ◆ Ingesting lead through food, cigarettes, and chewing tobacco when handled with contaminated hands.

Lead is not absorbed through your skin. When lead is scattered in the air as a dust, fume or mist it can be inhaled and absorbed through your lungs and upper respiratory tract. Inhalation of airborne lead is generally the most important source of occupational lead absorption. You can also absorb lead through your digestive system if lead gets into your mouth and is swallowed. If you handle food, cigarettes, chewing tobacco, or make-up, which have lead on them or handle them with hands contaminated with lead, this will contribute to ingestion.

A significant portion of the lead that you inhale or ingest gets into your blood stream. Once in your blood system, lead is circulated throughout your body and stored in various organs and body tissues. Some of this lead is quickly filtered out of your body and excreted, but some remains in the blood and other tissues.

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As exposure to lead continues, the amount stored in your body will increase if you are absorbing more lead than your body is excreting. Even though you may not be aware of any immediate symptoms of disease, this lead stored in your tissues can be slowly causing irreversible damage, first to individual cells, then to your organs and whole-body systems.

2. **Effects of overexposure to lead –**

2.1. **(1) Short-term (acute) overexposure.**

Lead is a potent, systemic poison that serves no known useful function once absorbed by your body. Taken in large enough doses, lead can kill you in a matter of days. A condition affecting the brain called acute encephalopathy may arise which develops quickly to seizures, coma, and death from cardio respiratory arrest. A short-term dose of lead can lead to acute encephalopathy. Short-term occupational exposures of this magnitude are highly unusual, but not impossible. Similar forms of encephalopathy may, however, arise from extended, chronic exposure to lower doses of lead. There is no sharp dividing line between rapidly developing acute effects of lead and chronic effects, which take longer to acquire. Lead adversely affects numerous body systems and causes forms of health impairment and disease which arise after periods of exposure as short as days or as long as several years.

2.2 **(2) Long-term (chronic) overexposure.**

Chronic overexposure to lead may result in severe damage to your blood-forming, nervous, urinary and reproductive systems. Some common symptoms of chronic overexposure include loss of appetite, metallic taste in the mouth, anxiety, constipation, nausea, pallor, excessive tiredness, weakness, insomnia, headache, nervous irritability, muscle and joint pain or soreness, fine tremors, numbness, dizziness, hyperactivity and colic. In lead colic there may be severe abdominal pain.

4. **SAFETY MEASURES:**

Dahl Electric employees are not permitted to work in areas where there may be a potential for Lead exposure. If it is necessary to perform any work where the exposure to Lead is above acceptable limits, then **Dahl Electric** must implement a comprehensive mandated safety policy and procedure that includes special elements of exposure monitoring, formal medical program, special personal protective equipment, and much more.

Below are listed possible work controls and practices:

1. **WELDING, BURNING, AND TORCH CUTTING.**

Welding and cutting activities that potentially involve exposure to lead can occur as part of a number of construction projects. Lead exposures are generated when a piece of lead-based painted steel is heated to its melting point either by an oxyacetylene torch or an arc welder. In this situation, lead becomes airborne as a volatilized component of the coating.

2. **MANUAL SCRAPING, DRILLING or SANDING OF LEAD-BASED PAINTS.**


The health hazards of lead-based paints are caused by the lead dust and paint chips produced in the work process. Use of wet-sanding and wet-scraping methods in conjunction with HEPA vacuuming can mitigate contaminated airborne dust. Wet methods include misting of peeling paint with water before scraping, drilling or sanding and misting of debris prior to sweeping or vacuuming.

5. **TRAINING:**

All employees will be provided awareness training in this program in order to be familiar with the potential hazards and proper safe work procedures to follow if exposed to this health hazard.


Training and information will be provided for all employees exposed to lead at or above the action level, or who may suffer skin or eye irritation from lead. The training will inform exposed employees of:

1. Specific hazards associated with their work environment,
2. Protective measures which can be taken,

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3. Danger of lead to their bodies (including their reproductive systems), and
4. Their rights under the standard.

END OF SECTION

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|  | Document Title: SAFETY PROCEDURES MANUAL | | |
| | Section: 17 Fire Protection and Prevention | | |
| | Revision Date: 1-1-08 | Revision: | 0 |

Introduction


This Fire Protection and Prevention Plan identifies major fire hazards, provides measures to prevent fires, and specifies equipment and training necessary to enable employees to safely suppress small fires that may occur. Education and training are provided to enable all employees to understand this plan.

Content

1. Program Description
2. Training
3. Certification and Record Keeping

1. Program Description

2. Major fire hazards include:
 - 2.1. Electrical.
 - 2.2. Portable heaters.
 - 2.3. Office fire hazards.
 - 2.4. Cutting, welding, and open flame work.
 - 2.5. Flammable and combustible materials.
 - 2.6. Smoking.
3. To minimize the risk of fire from these hazards, the following safe practices are required:
 - 3.1. Daily housekeeping to minimize fire hazard.
 - 3.2. Proper disposal or storage of combustible and flammable materials as follows:
 - 3.2.1. Remove or control all ignition sources such as static electricity, smoking, or open flames.
 - 3.2.2. Approved containers and tanks for storage and handling flammable and combustible liquids over one (1) gallon.
 - 3.2.3. Containers and tanks legibly marked to indicate contents.
 - 3.2.4. No more than twenty-five (25) gallons of flammable or combustible liquid stored in a room, unless they are stored in approved storage cabinet(s).
 - 3.2.5. Outside storage of flammable or combustible liquid shall not exceed eleven-hundred (1,100) gallons in any one pile or area.
 - 3.3. All fires and open flames must be attended.
 - 3.4. Adequate fire suppression equipment must be:
 - 3.4.1. Properly maintained.
 - 3.4.2. Conspicuously marked.
 - 3.4.3. Periodically inspected.
 - 3.4.4. Available within one-thousand (1,000) feet travel distance, fifty (50) feet in areas where flammable or combustible liquid is stored.
 - 3.4.5. One for each three-thousand (3,000) feet of building area.

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3.5. Temporary heating devices operated and maintained according to the manufacturer's specifications and inspected to ensure:

- 3.5.1. Proper clearance from combustible materials.
- 3.5.2. Adequate ventilation.
- 3.5.3. Proper fuel.
- 3.5.4. Safety switches.

4. Establish "No Smoking" and "NO Open Flames" areas.

5. Maintain sufficient fire lanes to allow rapid access for fire control apparatus into storage or work areas.

2. Training

1. The Safety Representative shall provide basic fire prevention training to all newly hired employees which includes:

- 1.1. This fire prevention plan, including how it can be accessed.
- 1.2. Good housekeeping practices.
- 1.3. Instruction on the use of portable fire extinguishers.

2. Employees shall be re-trained when any one or more of the following are noted:


- 2.1. Annually.
- 2.2. Deficiencies in training.
- 2.3. Changes to the workplace.
- 2.4. Fire protection systems or equipment changes that render previous training obsolete.

3. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:

- 1.1. Names of employees trained.
- 1.2. Dates of training.

END SECTION

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|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 18 Forklift and Industrial Truck Operations | | |
| | Revision Date: | 1-10-11 | Revision: | 1 |

Introduction

The procedures here establish uniform requirements designed to ensure that Powered Industrial Truck (PIT) safety training, operation, and maintenance practices are communicated to and understood by the affected employees. These requirements also are designed to ensure that procedures are in place to safeguard the health and safety of all employees.

Purpose

The information in this policy will be used to train prospective industrial truck operators and provide the basis for initial and refresher training.

This written plan is available upon request to employees, their designated representatives, and any OSHA officials who ask to see it. Copies of this plan may be obtained from the Safety Representative's Office. If after reading this program you find that improvements can be made or have specific comments, please contact the Safety Representative.

Content

1. Responsibility
2. Pre-Qualifications for Powered Industrial Truck (PIT) Operators
3. Training
4. Evaluation
5. Safe Operating Procedures (SOP) & Rules
6. Changing and Charging Storage Batteries
7. Operations
8. Traveling
9. Loading
10. Fueling Safety
11. Maintenance of Powered Industrial Trucks
12. Safe Operation Procedure (SOP) for Charging LPG Tank
13. Operator's Inspection Guide and Trouble Report Checklist


1. Responsibility

1. The President of Dahl Electric, Inc. has the overall responsibility for the implementation of and compliance with these safety procedures.
2. The Safety Representative is the program coordinator acting as the representative of the company president. The Safety Representative will review and update the plan as necessary.
3. The Safety Representative will assign the Training Evaluators. Their duties will consist of completing all practical hands on training, evaluation and presenting particular hazards associated with forklift operations.

2. Pre-Qualifications for Powered Industrial Truck (PIT) Operators

All candidates for PIT operators must meet the following basic requirements prior to starting training:

1. Must have no adverse vision problems that cannot be corrected by glasses or contacts.
2. No adverse hearing loss that cannot be corrected with hearing aids.
3. No physical impairments that would impair safe operation of the PIT.
4. No neurological disorders that affect balance or consciousness.
5. Not taking any medication that affects perception, vision, or physical abilities.


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3. Training

1. Only an experienced operator, selected by management will conduct training for Powered Industrial Truck (PIT) Operators. All operational training will be conducted under close supervision. All training and evaluation shall be completed before an operator is permitted to use a PIT (forklift, etc) without continual & close supervision.
2. Training consists of:
 - 2.1. A combination of formal instruction, practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.
3. Trainees may operate a powered industrial truck only:
 - 3.1. Under the direct supervision of persons, selected by management, who have the knowledge, training, and experience to train operators and evaluate their competence; and where such operation does not endanger the trainee or other employees.
4. Initial Training:

Powered industrial truck operators will receive initial training in the following topics:

- 4.1. Truck-related training topics:
 - 4.1.1. Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate.
 - 4.1.2. Differences between the truck and the automobile.
 - 4.1.3. Truck controls and instrumentation: where they are located, what they do, and how they work.
 - 4.1.4. Engine or motor operation.
 - 4.1.5. Steering and maneuvering.
 - 4.1.6. Visibility (including restrictions due to loading).
 - 4.1.7. Fork and attachment adaptation, operation, and use limitations.
 - 4.1.8. Vehicle capacity.
 - 4.1.9. Vehicle stability.
 - 4.1.10. Any vehicle inspection and maintenance that the operator will be required to perform.
 - 4.1.11. Refueling and/or charging and recharging of batteries.
 - 4.1.12. Operating limitations.
 - 4.1.13. 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.
- 4.2. Workplace-related topics:
 - 4.2.1. Surface conditions where the vehicle will be operated.
 - 4.2.2. Composition of loads to be carried and load stability.
 - 4.2.3. Load manipulation, stacking, and un-stacking.
 - 4.2.4. Pedestrian traffic in areas where the vehicle will be operated.
 - 4.2.5. Narrow aisles and other restricted places where the vehicle will be operated.

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- 4.2.6. Hazardous (classified) locations where the vehicle will be operated.
- 4.2.7. Ramps and other sloped surfaces that could affect the vehicle's stability.
- 4.2.8. Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust.
- 4.2.9. Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation.

5. Refresher training

Refresher training, including an evaluation of the effectiveness of that training, will be conducted to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely. Refresher training in relevant topics will be provided to the operator when:

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


4. Evaluation

Once every 3 years, a combination of formal instruction and evaluation will be conducted of each powered industrial truck operator's performance.

5. Safe Operating Procedures (SOP) & Rules

Only authorized and trained personnel will operate PITs.

- 1. All PITs will be equipped with a headache rack. When provided, seat belts will be worn at all times by the Operator.
- 2. The operator will perform a daily inspection by filling out the [Forklift Daily Shift Checklist](#) form.
- 3. Any safety defects (such as hydraulic fluid leaks; defective brakes, steering, lights, or horn; and/or missing fire extinguisher, lights, seat belt, or back-up alarm) will be reported for immediate repair or have the PIT taken "Out of Service".
- 4. Operators will follow the proper recharging or refueling safety procedures.
- 5. Loads will be tilted back and carried no more than 6 inches from the ground. Loads that restrict the operator's vision will be transported backwards.
- 6. PITs will travel no faster than 5 mph or faster than a normal walk.
- 7. Hard hats will be worn by PIT Operators in high lift areas.
- 8. Operator will sound horn and use extreme caution when meeting pedestrians, making turns and cornering.
- 9. Passengers may not ride on any portion of a PIT. Only the operator will ride PITs.
- 10. If PITs are used as a man lift, an appropriate man lift platform (cage with standard rails and toe-boards) will be used.
- 11. Lift capacity will be marked on all PITs. Operator will assure load does not exceed rated weight limits.
- 12. When un-attended, PITs will be turned off, forks lowered to the ground and parking brake applied.

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13. Operators are instructed to report all accidents, regardless of fault and severity, to Management. Management will conduct an accident investigation.

14. Trailers will have wheels chocked in place before loading or off loading of equipment.

6. Changing and Charging Storage Batteries.


1. Trucks will have brake properly applied before attempting to change or charge batteries.
2. Care will be taken to assure that vent caps are functioning for adequate ventilation for dispersal of fumes from gassing batteries. The battery (or compartment) cover(s) will be open to dissipate heat.
3. Smoking is prohibited in the area.
4. Precautions will be taken to prevent open flames, sparks, or electric arcs in battery charging areas.
5. Tools and other metallic objects will be kept away from the top of uncovered batteries.
6. Reinstalled batteries will be properly positioned and secured in the truck.

7. Operations

1. If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck will be taken out of service until it has been restored to safe operating condition.
2. Trucks will not be driven up to anyone standing in front of a bench or other fixed object.
3. No person will be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.
4. Unauthorized personnel will not be permitted to ride on powered industrial trucks.
5. Arms or Legs will not be placed between the uprights of the mast or outside the running lines of the truck.
6. When a powered industrial truck is left unattended, load-engaging means will be fully lowered, controls will be neutralized, power will be shut off, and brakes set. Wheels will be blocked if the truck is parked on an incline.
7. A safe distance will be maintained from the edge of ramps or platforms while on any elevated dock, or platform or freight car. Trucks will not be used for opening or closing freight doors.
8. There will be sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc.
9. An overhead guard will be used as protection against falling objects. It should be noted that an overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.
10. A load backrest extension will be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.
11. Trucks will not be parked so as to block fire aisles, access to stairways, or fire equipment.

8. Traveling

1. All traffic regulations will be observed, including authorized speed limits. A safe distance will be maintained approximately three truck lengths from the truck ahead, and the truck will be kept under control at all times.
2. The right of way will be yielded to ambulances, fire trucks, or other vehicles in emergency situations.
3. Other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations will not be passed.

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4. The driver will be required to slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver will be required to travel with the load trailing.
5. Railroad tracks shall be crossed diagonally wherever possible. Parking closer than 8 feet from the center of railroad tracks is prohibited.
6. The driver will be required to look in the direction of, and keep a clear view of the path of travel.
7. Grades will be ascended or descended slowly. When ascending or descending grades in excess of 10 percent, loaded trucks will be driven with the load upgrade. On all grades the load and load engaging means will be tilted back if applicable, and raised only as far as necessary to clear the road surface.
8. Under all travel conditions the truck will be operated at a speed that will permit it to be brought to a stop in a safe manner.
9. **Stunt driving and horseplay will not be permitted.**
10. The driver will be required to slow down for wet and slippery floors.
11. Dockboard or bridgeplates, will be properly secured before they are driven over. Dockboard or bridgeplates will be driven over carefully and slowly and their rated capacity never exceeded.
12. Running over loose objects on the roadway surface will be avoided.
13. While negotiating turns, speed will be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel will be turned at a moderate, even rate.

9. Loading

1. Only stable or safely arranged loads will be handled. Caution will be exercised when handling off-center loads which cannot be centered.
2. Only loads within the rated capacity of the truck will be handled.
3. The long or high (including multiple-tiered) loads which may affect capacity will be adjusted.
4. Trucks equipped with attachments will be operated as partially loaded trucks when not handling a load.
5. A load engaging means will be placed under the load as far as possible; the mast will be carefully tilted backward to stabilize the load.
6. Extreme care will be used when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated will be prohibited except to pick up a load. An elevated load will not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load will be used.

10. Fueling Safety

1. Fuel tanks will not be filled while the engine is running. Spillage will be avoided.
2. Spillage of oil or fuel will be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.
3. No truck will be operated with a leak in the fuel system until the leak has been corrected.
4. Open flames will not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.

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11. Maintenance of Powered Industrial Trucks


1. Any power-operated industrial truck not in safe operating condition will be removed from service. All repairs will be made by authorized personnel.
 - 1.1. Preventive Maintenance shall be tracked by the Maintenance Department. Inspections shall be performed by company authorized personnel on a monthly, quarterly, semiannual and annual inspection as outlined in each owner Operation & Maintenance Manual.
2. Those repairs to the fuel and ignition systems of industrial trucks which involve fire hazards will be conducted only in locations designated for such repairs.
3. Trucks in need of repairs to the electrical system will have the battery disconnected prior to such repairs.
4. All parts of any such industrial truck requiring replacement will be replaced only by parts equivalent as to safety with those used in the original design.
5. Industrial trucks will not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor will they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. **Additional counter-weighting of fork trucks will not be done unless approved by the truck manufacturer.**
6. Industrial trucks will be examined before being placed in service, and will not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination will be made at least daily. Where industrial trucks are used on a round-the-clock basis, they will be examined prior to use each shift. Defects when found will be immediately reported and corrected.
7. When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle will be removed from service and not returned to service until the cause for such overheating has been eliminated.
8. Industrial trucks will be kept in a clean condition, free of lint, excess oil, and grease. Noncombustible agents should be used for cleaning trucks. Low flash point (below 100 deg. F.) solvents will not be used. High flash point (at or above 100 deg. F.) solvents may be used.

12. Safe Operation Procedure (SOP) for Charging LPG Tank

1. No Smoking.
2. Move LPG PIT outside for refueling.
3. Turn off PIT.
4. LPG tanks will be removed in the following order:
 - 4.1. shut off service valve
 - 4.2. disconnect tank from hose
 - 4.3. unbuckle and remove tank from bracket
5. LPG tanks will be replaced in to following order:
 - 5.1. place tank in bracket and re-buckle
 - 5.2. reconnect hose to tank and tighten firmly
 - 5.3. open valve slowly and assure proper seal

NOTE: Federal Law Prohibits dispensing an improper fuel type into any Vehicle or into a non-approved fuel container.

6. In Case of LPG Leaks or Tank Rupture

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- 6.1. DO NOT start or move the PIT.
- 6.2. If fuel hose is leaking, Close valve immediately and place PIT "Out of Service" until repaired.
- 6.3. If tank ruptures, warn other, immediately leave the area (at least 50 feet) and notify Management. Do not re-enter the area until cleared by Management.

13. Operator’s Inspection Guide and Trouble Report Checklist

If any deficiencies are noted, the unit is to be placed ‘**OUT OF SERVICE**’ until the problem has been corrected. An operator’s inspection shall to be conducted by the operator prior to use each shift. Additionally, it is the operator’s responsibility to notify the immediate supervisor and fill out the ‘**Operator’s Inspection Guide and Trouble Report**’. See attachment ‘A’.

END SECTION

See forms for Attachment A -- Forklift Daily Check Sheet

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| | Section: | 19 Hand and Portable Power Tools | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Introduction

Employees who use hand and power tools and who are exposed to the hazards of falling, flying, abrasive and splashing objects, or exposed to harmful dusts, fumes, mists, vapors, or gases must use the appropriate equipment needed, including Personal Protective Equipment, to protect them from the hazard.

Content

1. Basic Safety Rules
2. Hand Tools
3. Portable Power Tools
4. Training
5. Certification and Record Keeping

1. Basic Safety Rules

1. All hazards involved in the use of hand tools and portable power tools can be prevented by following some basic safety rules:
 - 1.1. Keep all tools in good condition with regular maintenance.
 - 1.2. Use the right tool for the job.
 - 1.3. Examine each tool for damage before use.
 - 1.4. Operate according to manufacturers instructions.
 - 1.5. Utilize the Proper Protective Equipment.
 - 1.6. Participate in safety training.

2. Hand Tools


Hand tools are non-powered. They include anything from axes to wrenches. The greatest hazards posed by hand tools result from misuse and improper maintenance. Hand tools may be used only with the proper personal protective equipment and according to the following general safe practices:

1. Employees are responsible for the use of hand tools according to the Basic Safety Rules above. Under no circumstances will hand tools be used if they are examined and found to be unsafe.
2. Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung or worn to the point that slippage occurs.
3. Nails shall not be cut with an axe.
4. Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.
5. The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

3. Portable Power Tools

Power tools can be hazardous when improperly used. There are several types of power tools, based on the power source they use: electric, pneumatic, liquid fuel, hydraulic and powder-actuated. Portable power tools may be used only with the proper personal protective equipment and according to the following general safe practices:

1. Employees are responsible for the use of portable power tools according to the basic safety rules above. Under no circumstances will portable power tools be used if they are examined and found to be unsafe.

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2. Guards shall be in place for all belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment shall be guarded if such parts are exposed to contact by employees.
3. Abrasive wheel machinery with abrasive wheels of two (2) inches in diameter must be guarded.
4. When using compressed air tools, compressed air shall not be used to blow dirt or other debris off clothes.
5. When using pneumatic tools, employees shall ensure they are fastened securely to the hose to prevent them from becoming disconnected. A short wire or positive locking device attaching the air hose to the tool may serve as an added safeguard.
6. Powder Actuated Tools require the following:
 - 6.1. Each operator shall be trained by a qualified instructor or the tool manufacturer.
 - 6.2. Powder actuate tools shall be kept in a locked container and the container shall be labeled.
 - 6.3. Tools may only be operated according to manufacturers instructions.
 - 6.4. Eye or face protection will be worn when the tool is in use.
7. Electric tools shall be operated according to the following general practices:
 - 7.1. Electric tools shall be operated within their design limitations.
 - 7.2. Gloves and safety footwear are recommended during use of electric tools.
 - 7.3. When not in use, tools shall be stored in a dry place.
 - 7.4. Electric tools shall not be used in damp or wet locations.
 - 7.5. Work areas shall be well lit, even if this means the operators has to augment the work surface illumination by other appropriate means.
 - 7.6. Tools shall be shut down before cleaning, repairing or oiling. Disconnect or use Lockout/Tagout Procedures.
8. All portable electric tools that are damaged shall be removed from use and tagged "Do Not Use". This shall be done by supervisors and/or employees.
9. The Safety Representative shall provide training to all newly hired employees which includes


4. Training

1. The Safety Representative shall provide training to all newly hired employees which includes:
 - 1.1. Review of the Basic Safety Rules above.
 - 1.2. Review of the general safe practices for Hand Tools and Portable Power Tools above.
2. Employees who will be required to use powder actuated tools will be trained by the Safety Representative or a trainer designated by the Safety Representative prior to use.

5. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
 - 1.1. Names of employees trained.
 - 1.2. Dates of training.

END SECTION

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|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 20 Heat Stress | | |
| | Revision Date: | 8-25-10 | Revision: | 2.1 |

Introduction

Working during the summer, especially outdoors, can be uncomfortable when the thermometer hits 90 degrees and above. High temperatures, high humidity and physical work may develop a work-related heat illness. The most severe heat-induced illnesses are heat exhaustion and heat stroke. If urgent action is not taken to treat a case of heat exhaustion, the illness could progress to heat stroke, and possibly even death.

Employers and co-workers should be alert for common indicators of heat exhaustion. A person coping with heat exhaustion will still sweat but may also experience extreme fatigue, nausea, light-headedness or a headache. The skin of the affected person could be clammy and moist, with a pale complexion and a normal or only slightly elevated body temperature.

Content:

1. Basic safety –Prevention of heat stress.
2. What to do if heat illness is suspected.
3. Heat stroke – A medical emergency
3. Training
4. Certification and Record Keeping

The months of May through September offer the greatest risk for heat stress in our area. Ambient temperature of 89 degrees triggers procedures for heat illness avoidance and increased vigilance to identify workers who are at risk of heat induced illness.
 (Or 77 degrees if wearing heavier, double thick clothing, or 52 degrees if wearing non-breathable clothing such as some PPE such as Chemical resistant suits.)


1. Basic safety –Prevention of heat stress.

1. Train employees and supervisors on the signs and symptoms of heat-induced illnesses and what to do to help workers
2. Perform the heaviest, most labor-intensive work during the coolest parts of the day.
3. Slowly build up tolerance to the heat and the work activity (this usually takes up to two weeks).
4. Use the buddy system to monitor the heat (work in pairs).
5. Drink plenty of cool water (one small cup every 15-20 minutes). Potable water shall be provided.
6. Wear light, loose-fitting, breathable (such as cotton) clothing.
7. Take frequent short breaks in cool, shaded areas - allow your body to cool down. Shaded areas shall be provided.
8. Avoid eating large meals before working in hot environments.
9. Avoid caffeine and alcoholic beverages (these beverages make the body lose water and increase the risk of heat illnesses).
10. Workers can be at increased risk when they take certain medications. Check with your doctor, nurse, or pharmacy to see if medicines you take may affect you when working in hot environments.
11. People who have experienced a heat-induced illness in the past, or must wear personal protective equipment while on the job are at higher risk for heat illness.

2. What to do if heat illness is suspected.

1. Move the person to a cool shaded area. Don't leave the person alone.
2. If the person is dizzy or light-headed, lay them on their back and raise their legs about 6-8 inches at the feet.
3. If the person is sick to their stomach, lay them on their side.
4. Loosen and remove heavy clothing.
5. Have the person drink some cool water (a small cup every 15 minutes) if they are not feeling sick to their stomach.
6. Try to cool the person by fanning them. Cool the skin with a spray mist of cold water or a wet cloth.

If the person does not feel better in a few minutes, call for emergency help (911)

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3. HEAT STROKE - A Medical Emergency

If heat exhaustion goes unnoticed or left untreated heat stroke can result.

1. In extreme situations, heat stroke may lead to death.
2. Heat stroke is a different condition than heat exhaustion, and there are several reactions to the human body:
3. Dry, pale skin (no sweating);
4. Hot red skin (looks like a sunburn);
5. Mood changes; irritability, confusion, and not making any sense;
6. Seizures or fits, and
7. Collapsing (person will not respond to verbal commands).

What to do:

1. Call for emergency help (i.e., ambulance or 911).
2. Move the person to a cool, shaded area. Don't leave the person alone. Lay them on their back and if the person is having seizures, remove objects close to them so they won't hit them. If the person is sick to their stomach, lay them on their side.
3. Remove heavy clothing and outer coverings.
4. Have the person drink some cool water (a small cup every 15 minutes) if they are alert enough to drink anything and not feeling sick to their stomach.
5. Try to cool the person by fanning him or her. Cool the skin with a spray mist of water, a wet cloth, or a wet sheet. If ice is available, place ice packs in armpits and groin area.

4. Training

1. The Safety Representative shall provide training to all newly hired employees which includes a review of the basic information above.
2. Job supervisors shall be trained in preventing heat related illness prior to supervising employees.
3. Additional training will be provided when worksite conditions indicate.

5. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating
2. Names of employees trained
3. Dates of training.


Additionally be aware of:

Cold Stress at Work

How to Protect Workers

- Recognize the environment and workplace conditions that lead to potential cold-induced illnesses and injuries
- Train the employees and supervisors in the signs and symptoms of cold-induced illnesses and injuries and what to do to help the worker
- Introduce environmental controls such as space heaters, umbrellas, drainage pumps (for water).

END SECTION

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|  | Document Title: | | SAFETY PROCEDURES MANUAL | |
| | Section: | | 21 Electrical Safety | |
| | Revision Date: | | 1-1-08 | Revision: |

Introduction

De-energizing electrical equipment prevents the accidental or unexpected starting of electrical equipment that can cause injury or death. Before any inspections or repairs are made, power should be turned off at the switch box and the switch should be padlocked in the OFF position. This is true even on so-called low-voltage circuits. Further information on and utilization of the lock-out / tag-out procedure is elsewhere in this Safety Procedures Manual. All de-energized parts should be treated as live at all times.

Purpose

Employees who face a risk of electrical shock or related injuries must be trained in appropriate electrical safety work practices. In addition, employees who work around - but not on – electrical systems must be trained in the hazards associated with electricity.

This written plan is available upon request to employees, their designated representatives, and any OSHA officials who ask to see it. Copies of this plan may be obtained from the Safety Representative's Office. If after reading these programs you find that improvements can be made or have specific comments, please contact the Safety Representative.

Content

1. Training Requirements
2. Tools and Equipment
3. Overhead Power Lines
4. Illumination
5. Confined or Enclosed Work Spaces
6. Conductive Material

1. Training


1. All employees who work on or around electrical systems will be trained when hired by the Safety Representative. Only Qualified employees are allowed to work on electrical systems. Unqualified employees who work around – but not on – electrical systems shall be trained and familiar with electrically related safety and work practices that pertain to their respective job assignments.

1.1. Qualified and Non-Qualified employees shall at a minimum be trained in and familiar with the following:

- 1.1.1. The skills and techniques necessary to distinguish live parts from other parts of electrical equipment.
- 1.1.2. The skills and techniques necessary to determine the nominal voltage of exposed live parts, and
- 1.1.3. Clearance distances and corresponding voltages to which the person will be exposed.

2. Tools and Equipment

1. Employees should always use tools that work properly. Tools should be inspected before use, and those found questionable should be removed from service and properly tagged. Tools and other equipment shall be regularly maintained.
2. Portable ladders are required to have nonconductive side rails if used by an employee who is working where he or she might contact exposed energized circuit parts.
3. Inadequate maintenance can cause equipment to deteriorate, resulting in an unsafe condition. Tools that handle energized conductors must be designed to withstand the voltages and stresses to which they are exposed.

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3. Overhead Power Lines

1. If work is performed near overhead power lines, the lines must be de-energized and grounded by the owner or operator of the lines. Protective measures (i.e., guarding or insulating the lines) must be used to prevent employees from contacting the lines.
2. Employees shall adhere to the following distance guidelines:
 - 2.1 Unqualified employees and mechanical equipment must stay at least 10 feet away from overhead power lines. If voltage exceeds 50,000 volts, the clearance should be increased by four inches for each 10,000 volts.
 - 2.2 Qualified employees and mechanical equipment must adhere to the following distance guidelines:

| Voltage range (phase to phase) | Minimum approach distance |
|--------------------------------|---------------------------|
| 300V and less | Avoid Contact |
| Over 300V, not over 750V | 1 ft. 0 in. (30.5 cm). |
| Over 750V, not over 2kV | 1 ft. 6 in. (46 cm). |
| Over 2kV, not over 15kV | 2 ft. 0 in. (61 cm). |
| Over 15kV, not over 37kV | 3 ft. 0 in. (91 cm). |
| Over 37kV, not over 87.5kV | 3 ft. 6 in. (107 cm). |
| Over 87.5kV, not over 121kV | 4 ft. 0 in. (122 cm). |
| Over 121kV, not over 140kV | 4 ft. 6 in. (137 cm). |

3. When mechanical equipment is being operated near overhead lines, an employee standing on the ground may not contact the equipment. (Exception: this prohibition does not apply if the equipment is located so that the required clearance cannot be violated even at the maximum reach of the equipment.)

1. Illumination

1. Employees may not enter spaces containing exposed energized parts unless illumination is provided that enables the employees to work safely.


2. Confined or Enclosed Work Spaces

1. When working in confined or enclosed work spaces, protective measures which may include protective shields, protective barriers or insulating materials shall be provided as necessary.

3. Conductive Material

1. Conductive materials and equipment that are in contact with any part of an employee's body must be handled in a manner that will prevent them from contacting exposed energized conductors or circuit parts.
2. If an employee must handle long conductive objects such as metal ducts, pipes or rods, in areas with exposed live parts, then insulation, guarding and/or approved materials handling techniques must be used.
3. Conductive apparel shall not be worn unless the items are rendered non-conductive by covering, wrapping or other insulating means.

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| | Section: 22 Assured Equipment Grounding | | |
| | Revision Date: 1-1-08 | Revision: | 0 |

Introduction

An Assured Equipment Grounding Program requires:

1. Ground fault circuit interrupters (GFCI) for all 120-volt, single phase, 15-20 ampere receptacle outlets which are not a part of the permanent wiring of a building or structure on a construction project, or
2. Implementation of the assured grounding conductor program on construction sites covering all cord sets or receptacles which are not a part of the building or structure.


This written plan is available upon request to employees, their designated representatives, and any OSHA officials who ask to see it. Copies of this plan may be obtained from the Safety Representative. If after reading this program you find that improvements can be made or have specific comments, please contact the Safety Representative.

1. Procedure

1. Jobsite Supervisors are designated to implement the assured equipment grounding program.
2. The preferred implementation of the program is the use of ground fault interrupters as described above. If their use is not feasible, all cord sets or receptacles to be used in a construction area which are not connected to the permanent wiring of the building or structure shall be tested, identified, and coded using the following procedures.
 - 2.1. All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.
 - 2.2. Each receptacle and attachment cap or plug will be tested for correct attachment of the ground conductor. The ground conductor will be connected to the proper terminal.
 - 2.3. Each outlet receptacle or power source will be tested to ensure proper polarity.
 - 2.4. Tests will be conducted:
 - 2.4.1. At intervals not to exceed three (3) months. Cord sets that are in fixed locations and not exposed to damage will be inspected at intervals not to exceed six (6) months.
 - 2.4.2. Before equipment is first placed in service.
 - 2.4.3. Before being used after an accident which could reasonably be suspected to have been caused by defective equipment.
 - 2.4.4. Before equipment is returned to service, following repairs.
 - 2.5. Colored phase tape will be applied to the male end of the cords when tested according to the following color scheme:

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|--------|------------------|--------|
| 2.5.1. | January-March | White |
| 2.5.2. | April-May | Green |
| 2.5.3. | July-September | Red |
| 2.5.4. | October-December | Orange |
 - 2.6. Equipment will be inspected, before each use, for external defects or damage.
 - 2.7. Defective equipment will not be used. It will be discarded or repaired and tested, before it is placed back into service.

END SECTION

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|---|------------------------|------------------------------------|------------------|----------|
|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 23 Motorized Vehicle Policy | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Purpose: To minimize risk associated with motor vehicle operations by establishing a program to assure that motor vehicles operating in the course of company business are in safe operating condition and are operated by competent and qualified operators in a safe manner.


Responsibilities

1. **Safety Representative** coordinates policy, program and review of program, driver screening, and collection of all pertinent information and monitors vehicle inspection and maintenance program.
2. **Drivers** report immediately every vehicle accident or property damage accident in which they are involved and maintain a valid driver’s license with the required endorsements for the type of vehicle he/she will be driving to be in compliance with our insurance requirements. Drivers are responsible for seeing to the required maintenance of their company vehicle. Each vehicle’s log book is to be kept up to date with records of repairs and maintenance. Log books contain safety check and maintenance schedule information as well as legal documents for each vehicle.
3. **Senior Management** Program approval and support.

Policies

1. A list of qualified drivers will be established and maintained. Employees will be required to allow continuing driver records checks as a qualification of employment. Driving records will be monitored by our insurance broker, and reviewed annually for adverse trends. Disqualification of driver will be based on advice of our insurer.
2. Vehicle files for inspection and maintenance will be established for each motor vehicle and item of mobile equipment. This file will contain the following information: Description of make, model, serial number, and date of acquisition. Copy of Certificate of Registration. Copy of any required inspections and certifications. Copies of inspection reports. Copy of vehicle repair and maintenance record providing a complete chronological history of all repairs and preventive maintenance performed, including date, mileage, nature of work, name of individual or firm performing the work.
3. All operators will perform a pre-trip vehicle safety inspection at least daily-
4. Vehicle maintenance will be performed on a scheduled preventive basis, either by time increment or mileage. At each scheduled preventive maintenance period, a vehicle safety check will be made. Regular drivers of company vehicles are expected to see that maintenance is performed on schedule.
5. The following shall apply when dealing with accident investigation:
 - 5.1. Drivers are required to report all motor vehicle accidents where there is visible or suspected physical damage to either vehicle.
 - 5.2. Motor vehicle accidents occurring on public streets or highways will be investigated by applicable traffic law enforcement agency.
 - 5.3. Following involvement in an accident in which a Dahl Electric_employee is cited, the driver may be required to undergo a drug test for cause, in accordance with the alcohol and drug policy, and an updated MVR will be requested. Depending on circumstances, disciplinary action may be initiated.
 - 5.4. Motor vehicle accidents occurring on job sites will be investigated and reported by the site safety representative. If negligence on part of Dahl Electric employee is suspected, a for-cause drug screen may be initiated, and depending on circumstances disciplinary action may be imposed.

END SECTION

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|---|------------------------|-------------------------------------|------------------|----------|
|  DAHLEEI926OD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 24 Hearing Conservation Plan | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Introduction


Employees shall be provided with protection against the effects of noise exposure when the sound levels equal or exceed an 8-hour time-weighted average sound level of 85 decibels measured on the A-scale (slow response) or, equivalently, a dose of fifty percent.

Content

1. Program Description
2. Training
3. Certification and Record Keeping

1. Program Description

1. Monitoring shall be conducted when information indicates that any employee's exposure may equal or exceed an 8-hour time-weighted average of 85 decibels (the action level).
2. Instruments used to measure employee noise exposure shall be calibrated to ensure measurement accuracy.
3. Monitoring shall be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that additional employees may be exposed at or above the action level or the attenuation provided by hearing protectors being used by employees may be rendered inadequate to meet the requirements of paragraph (5.2) of this section.
4. Each employee exposed at or above an 8-hour time-weighted average of 85 decibels shall be notified of the results of the monitoring.
5. An audiometric testing program shall be available to all employees whose exposures equal or exceed an 8-hour time-weighted average of 85 decibels (the action level) at no cost to the employee. The program shall provide for:
 - 5.1. A baseline audiogram conducted within six (6) months of an employee's first exposure at or above the action level. Prior to baseline establishment a minimum period of 14 hours without exposure to workplace noise is observed.
 - 5.2. Annual audiograms performed for each employee exposed at or above an 8-hour time-weighted average of 85 decibels. Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift, the employee shall be informed of this fact in writing, within 21 days of the determination.
 - 5.3. Upon determination that a standard threshold shift has occurred, the use of hearing protection shall be re-evaluated and/or refitted and if necessary a medical evaluation may be required.
6. Hearing protectors shall be available to all employees exposed to noise levels at or above the action level and shall be provided at no cost to the employee. Jobsite Supervisors shall ensure that hearing protectors are worn and that employees are properly trained in the use, care and fitting of protectors.
7. Employees shall be removed from the Hearing Conservation Program once noise levels have been measured and determined to be below the action level.
8. Affected employees or their representatives shall be provided an opportunity to observe any noise measurements.
9. Noise exposure procedures shall be posted in the workplace and copies shall be made available to affected employees.

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|  DAHLEEI926OD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 24 Hearing Conservation Plan | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |


2. Training

1. The Safety Representative shall provide Hearing Conservation training to all newly hired employees which includes:
 - 1.1. This Hearing Conservation plan, including how it can be accessed.
 - 1.2. Factors which suggest that noise exposures in the workplace may be at or above 85 dB including complaints about the loudness of noise, indications that employees are losing their hearing, or noisy conditions which make normal conversation difficult.
 - 1.3. Instruction on the use, care and fitment of hearing protectors.
2. Employees shall be re-trained when any one or more of the following are noted:
 - 2.1. Annually.
 - 2.2. Changes to hearing protectors.
 - 2.3. Changes to the noise levels of the workplace.

3. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
 - 1.1. Names of employees trained.
 - 1.2. Dates of training.

END SECTION

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|---|------------------------|--|---------------------------------|------------------|
|  | Document Title: | | SAFETY PROCEDURES MANUAL | |
| | Section: | | 25 First Aid / CPR | |
| | Revision Date: | | 1-1-08 | Revision: |

Introduction

First aid services and provisions for medical care shall be made available for every employee. Provision shall be made prior to the commencement of a project for prompt medical attention in the case of serious medical injury. On jobsites where an infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite, is available for the treatment of injured employees, employees rendering First Aid/CPR do so on a Good Samaritan basis only. In the absence of an infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite, a person who has a valid certificate in first-aid training from the American Red Cross, or equivalent training that can be verified by documentary evidence, shall be available at the worksite to render first aid.

Content


1. Program Description / Responsibility
2. Training
3. Record Keeping

1. Program Description / Responsibility

1. Prior to the commencement of each project, the Safety Representative will ensure the following:
 - 1.1. An infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite, is available for the treatment of injured employees, or 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.
 - 1.2. 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 Field Supervisor before being sent out on each job and at least weekly on each job to ensure that the expended items are replaced.
 - 1.3. 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.
 - 1.4. 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.
2. During the commencement of each project, the Jobsite Supervisor will ensure the following:
 - 2.1. First Aid kits shall be accessible and shall be checked at least weekly to ensure that expended items are replaced and consists of items adequate for the work environment.
 - 2.2. 911 emergency services are available. In areas where 911 services are not available, the telephone numbers of the physicians, hospitals or ambulances are conspicuously posted.
 - 2.3. 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 available.

2. Training

1. Employees required to be trained in First Aid/CPR shall be certified by the U.S. Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence.

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|  <small>DAHLEEI926QD</small> | Document Title: SAFETY PROCEDURES MANUAL | | |
| | Section: 25 First Aid / CPR | | |
| | Revision Date: 1-1-08 | Revision: | 0 |

2. Employees shall be re-trained when any one or more of the following are noted:
 - 2.1. Prior to expiration of current certification.

3. Record Keeping

1. The Safety Representative shall keep records indicating:
 - 1.1. Names of employees trained.
 - 1.2. Dates of training.

Additional cautions regarding Bloodborne Pathogens

Per our policy, our employees render First Aid or CPR on a Good Samaritan basis only. This information is provided in the event that an employee chooses to render aid which might put him or her at risk of hazard from blood borne pathogens.

Our purpose is to protect exposed employees from hazards associated with blood borne pathogens, in particular HIV and Hepatitis B Virus. To protect employees who may choose to administer first aid after an accident such as a serious laceration from a tool.

It is determined that exposure could occur while an employee is administering first aid, and thus could be exposed to potentially infectious materials, in this case blood or items contaminated with blood.


Exposure Control

1. Universal Precautions must be observed to prevent contact with blood or other potentially infectious materials.
2. When at all possible victims of minor injury shall perform first aid to themselves under the supervision of a certified first aid individual.
3. When first aid assistance is needed, the first aid trained employee must wear the appropriate Personal Protective Equipment, disposable rubber or vinyl gloves, pocket masks or mouth pieces for CPR.
4. All employees exposed to blood or other potentially infectious materials must wash and clean exposed areas of their bodies before returning to work.
5. All work areas, materials and equipment must be cleaned after contact with blood or other possibly infectious material.
6. All contaminated materials must be properly collected, sealed in a plastic container for proper disposal.

Dahl Electric will provide hand washing facilities where possible. In case hand-washing facility is impractical, First Aid Kits will provide antiseptic cleansers or towelettes. Proper PPE will be provided, gloves, face shields, for CPR, eye protection. Orientation of employees to first aid supplies and PPE are in the Safety Orientation.

Post Exposure Evaluation and Follow Up: Immediately after an exposure incident the employee will be provided a confidential medical evaluation and follow up including documentation of the route of exposure, and the circumstances of the exposure incident. Identification and documentation of the source material. Medical evaluations, testing and post exposure treatments will be made available to the exposed employee.

END SECTION

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|  DAHLEEI926OD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 26 Respiratory Protection Plan | | |
| | Revision Date: | 12-07-15 | Revision: | 0 |

Introduction

No employee shall be issued or required to wear a respirator until the need for such protection is validated by the Safety Representative. If a potential respiratory hazard is identified, immediately remove yourself from the potential hazard and contact the Safety Representative at 360.661.0227, or the office at 360.755.1145 ext 10 to request a hazard assessment.

Only those employees who (1) volunteer, (2) have been trained, (3) have been fitted and (4) have medical clearance may use a respirator. Medical evaluation prior to fit-testing will be confidential, during normal working hours, convenient, understandable, and the employee given a chance to discuss the results with the physician or other licensed health care professional.

A filtering face-piece (dust mask) is not a respirator and may be worn at any time.

Content


1. Program Description
2. Training
3. Certification and Record Keeping

1. Program Description

1. The use of Supplied Air Respirators (SAR) or Self-Contained Breathing Apparatus (SCBA) **is not permitted.**
2. Prior to the use of a respirator, the Safety Representative shall conduct a hazard assessment to:
 - 2.1. Ensure that atmospheric contamination is first limited by engineering or control measures such as ventilation or substitution of materials.
 - 2.2. Determine the adequate level of protection and identify the appropriate cartridges necessary for the task.
 - 2.3. Determine the existence of an IDLH atmospheric condition. **No work shall be performed in an IDLH atmospheric condition.**
3. Employees shall be trained in the proper use and care of each type of respiratory protection devices.
4. Employees shall be proved to be physically able to perform the work and use the respirator by obtaining medical clearance from a physician.
5. Employees shall be required to pass a qualitative or quantitative fit test before first use of any respirator, and at least annually thereafter. Employees cannot wear tight-fitting face pieces if the seal is broken because of facial hair, glasses, etc.
6. Respirators will be maintained in a clean and sanitary manner by the Safety Representative according to the manufacturer's procedures.
7. Respiratory equipment will be provided to all employees that may be exposed to harmful vapors and oxygen deficient atmospheres at no cost.
8. NIOSH certified respirators are selected based on the hazards that the worker is exposed to.
9. Employees must leave the affected area prior to washing, changing cartridges, or if they detect break-through or resistance.

2. Training

1. The Safety Representative shall provide training to employees who **voluntarily agree** to work requiring the use of respirators which includes:


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|  DAHLEEI926OD | Document Title: | SAFETY PROCEDURES MANUAL | | |
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| | Revision Date: | 12-07-15 | Revision: | 0 |

- 1.1. Why the respirator is necessary and how improper fit, usage or maintenance can compromise the protective effect of the respirator.
- 1.2. What the limitations and capabilities of the respirator are.
- 1.3. How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
- 1.4. How to inspect, put on and remove, use and check the seals of the respirator.
- 1.5. What the procedures are for maintenance and storage of the respirator.
- 1.6. How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
2. Employees shall be re-trained when any one or more of the following are noted:
 - 2.1. Annually.
 - 2.2. Misuse or other apparent deficiency in training.

3. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
 - 1.1. Names of employees trained and type of PPE trained.
 - 1.2. Dates of training.

END SECTION

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|---|------------------------|-----------------------------------|------------------|----------|
|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 27 Fall Protection Program | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Purpose

The purpose of this program is to specify procedures and training for the safety of employees while working on elevated surfaces and ladders. This program applies to all employees that perform any duties on an elevated work surface where there is a fall hazard of six (6) feet or more to a lower level.

Content


1. Program Description
2. Training Requirements
3. Certification and Record Keeping

1. Program Description

1. When working on a jobsite with fall hazards, the Jobsite Supervisor must complete a Fall Protection Work Plan form.
2. Employees who work at heights of six (6) feet or greater are required to attend training on fall protection.
3. Employees working on ladders, scaffolds, aerial lifts and other elevated platform equipment must receive training on the use of such equipment.
4. Employees working over or around water must receive training and have proper personal protective equipment. Also they must complete a Working Over Water form.
5. Employees are not allowed to perform any duties which require the employee to get closer than six (6) feet to an unprotected edge, platform, walkway, or utilize elevated equipment unless the employee is properly secured from falling, with the following exceptions:
 - 5.1. At the working sides of loading docks.
 - 5.2. At the exposed perimeters of theatre stages.
 - 5.3. When using portable ladders up to sixty (60) feet in length.
 - 5.4. When working on scaffolds and aerial lifts up to six (6) feet in height.
 - 5.5. When working on the edge of an excavation up to six (6) feet in depth.
 - 5.6. When an employee is on a low slope roof defined as a roof having a slope of less than or equal to 4 in 12 vertical to horizontal (19.5 degree slope or less) for inspection or observation purposes only.
6. All employees shall control fall hazards in their work area by maintaining good housekeeping and shall report conditions that may lead to slips, trips and falls to the Jobsite Supervisor.
7. Subcontractors working for Dahl Electric are required to comply with all OSHA/WISHA workplace safety regulations and shall have their own fall protection program. Subcontractor safety programs shall be available for review upon request of the Field Supervisor or Safety Representative.

1. Training

1. The Safety Representative shall provide all newly hired employees with training to recognize fall hazards associated with the following work situations:
 - 1.1. Ladders - fixed, free standing, temporary, or roll away type
 - 1.2. Elevating Personal Platforms – scaffolds, aerial platforms, scissor lifts, forklift-mounted platforms, cherry pickers, etc.
 - 1.3. Elevated Surfaces – roofs (closer than 6 feet to the edge), catwalks, skylights, boilers, chillers, etc.

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- 1.4. Vertical Opening - ground level entry into excavations, trenches, holes, pits, vessels, and other confined spaces.
2. Fall protection is required whenever work is performed in an area 6 feet above its surroundings. Fall protection must meet the requirements of ANSI, ASTM or OSHA. Raw materials must meet ANSI & ASTM requirements. Fall protection systems may include:
 - 2.1. Guardrails - Standard guardrails consist of a top rail, located 42 inches above the floor, and a mid-rail. Screens and mesh may be used to replace the mid-rail, so long as they extend from the top rail to the floor.
 - 2.2. Personal Fall Arresting Systems - Components of a personal fall arresting system include a body harness, lanyard, lifeline, connector, and an anchorage point capable of supporting at least 5000 pounds.
 - 2.3. Positioning Device Systems - Positioning device systems consist of a body belt or harness rigged to allow work on a vertical surface, such as a wall, with both hands free.
 - 2.4. Warning Line Systems - Warning line systems are made up of lines or ropes installed around a work area on a roof. These act as a barrier to prevent those working on the roof from approaching it edges.
 - 2.5. Covers - Covers are fastened over holes in the working surface to prevent falls.

Where it can be clearly demonstrated that the use of these systems is infeasible or creates a greater hazard, alternative fall protection measures may be implemented.
3. Working over or around water is defined as: Any work over or immediately adjacent to water where a drowning hazard exists. P.P.E. required during work over or immediately adjacent to water are a life jacket and lanyard when necessary.
4. Dahl Electric Inc. shall provide for prompt rescue of employees in the event of a fall or shall assure the employees are able to rescue themselves
5. Employees shall be re-trained when any one or more of the following are noted:
 - 5.1. Deficiencies in training.
 - 5.2. Changes to the workplace.
 - 5.3. Fall protection systems or equipment changes that render previous training obsolete.

2. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
 - 1.1. Names of employees trained.
 - 1.2. Dates of training.

END SECTION

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|---|------------------------|---|------------------|----------|
|  DAHLEEI926OD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 28 Access to Employee Exposure and Medical Records | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Introduction

The purpose of this section is to provide employees and their designated representatives a right of access to relevant exposure and medical records.

Content

1. Program Description
2. Notification
3. Record Keeping
4. Access
5. Transfer of Records

1. Notification

Upon initial employment employees will be briefed and at least annually thereafter informed via a bulletin board posting of the following:


1. The existence, location and availability of employee records for exposure to toxic substances or harmful physical agents. The records are maintained in the Human Resources Manager office.
2. The Human Resources Manager is responsible for maintaining and providing access to the records. Contact the Human Resources Manager or Safety Representative to initiate this request.
3. The employee right of access to those records.
4. The entire section pertaining to the Access to Employee Exposure and Medical Records is available for employee review by contacting the Safety Representative. Since it is readily available posting is not required.

2. Record Keeping

1. The Human Resources Manager is responsible for maintaining and providing access to employees' medical records. These records are kept separately from other employee records.
2. The medical records of employees who have worked for less than (1) year for the employer need not be retained beyond the term of employment if they are provided to the employee upon the termination of employment.
3. Employee exposure records shall be maintained for the duration of employment and for 30 years thereafter and should include the following:
 - 3.1. Environmental (workplace) monitoring including personal, area, grab, swipe (wipe over a designated area), etc. type samples.
 - 3.2. Biological monitoring—level of chemical in the blood, urine, hair, fingernails, etc.
 - 3.3. Material safety data sheets or a chemical inventory or any other record which reveals where and when used and the identity (e.g., chemical, common, or trade name) of a toxic substance or harmful physical agent.

4. Access

1. Each employee has the right and opportunity to examine and copy his/her records.
2. The employee may access his/her records by making a request to the Human Resources Manager or Safety Representative. The company will release an employee's medical records only if the employee has given specific, written consent.


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3. Access to an employee will be provided no later than 15 days after the request for access has been made.
4. Records or copies must be provided at no cost to the employee.

5. Transfer of records

6. Whenever Dahl Electric, Inc. ceasing to do business, Dahl Electric, Inc. shall transfer all records subject to this section to the successor employer. The successor employer shall receive and maintain these records.
7. Whenever Dahl Electric, Inc. ceasing to do business and there is no successor employer to receive and maintain the records subject to this standard, Dahl Electric, Inc. shall notify affected employees of their rights of access to records at least three (3) months prior to the cessation of business.

END SECTION

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|---|------------------------|---|------------------|----------|
|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 29 Safety Performance Evaluation Program | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Introduction

The safety performance of every employee shall be evaluated annually or at any such time as is deemed necessary. A Safety Performance Evaluation Survey will be completed by each employee and reviewed by the Safety Representative. The written findings of the Safety Representative will be provided to the employee.

Content

1. Program Description
2. Training
3. Certification and Record Keeping

1. Program Description

1. A Safety Performance Evaluation Survey will be conducted at the following times:
 - 1.1. Annually.
 - 1.2. At any time that is deemed necessary.
2. The employee Safety Performance Evaluation Survey shall evaluate the following:
 - 2.1. L&I Claims.
 - 2.2. OSHA 300 recordable incidents.
 - 2.3. Driving record.
 - 2.4. Training certifications.
 - 2.5. Peer review.


2. Training

1. The Safety Representative shall require basic training or re-training based upon the completed Safety Performance Evaluation Survey which may include:
 - 1.1. Specific training relating to L&I claims or OSHA recordable incidents.
 - 1.2. Driver training or driver prohibition.
 - 1.3. Specific training for required certifications.
 - 1.4. Specific training based upon peer reviews.

3. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
 - 1.1. Names of employees evaluated.
 - 1.2. Dates of evaluation.

END SECTION

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|---|------------------------|--------------------------------------|------------------|----------|
|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 30 Hydrogen Sulfide Awareness | | |
| | Revision Date: | 12-1-2010 | Revision: | 0 |

This safety guideline is intended to provide suitable information to all **Dahl Electric** employees regarding the potential toxic effects of H₂S so that adequate measures can be taken to limit exposures through controls in the workplace.

1. GENERAL

Hydrogen sulfide is ever present in all refineries. In addition, it is generated in many industrial processes as a by-product and also during the decomposition of organic matter containing sulfur.

Hydrogen sulfide (H₂S) is a colorless gas that at low concentrations has the odor of rotten eggs. At high concentrations, it kills your sense of smell.

1. Formula H₂S
2. CAS No.: 7783-06-04

H₂S is a highly flammable and extremely toxic gas that can form an explosive mixture with air over a wide area.

2. CHARACTERISTICS OF HYDROGEN SULFIDE

When ignition occurs, the combustion produces irritants and toxic gases, including sulfur dioxide (SO₂). SO₂ has an irritating effect on the eyes and lungs and can be fatal at concentrations about 100PPM.

H₂S is heavier than air, has a tendency to settle in low-laying areas, and is readily dispersed by wind movements or currents.

H₂S attacks most metals, especially in the presence of water, forming sulfides that are usually insoluble precipitates. It is also very corrosive to plastics and tissue.

H₂S dissolves in water forming a weak acid (hydro sulfurous acid).

H₂S will be released when in water when agitated making it a dangerous hidden hazard.

3. HEALTH EFFECTS:

The following information outlines the symptoms of hydrogen sulfide at specific concentrations.

10 PPM (0.001% H₂S) - Obvious and unpleasant odor. Burning eye irritation. Permissible exposure limit - 8 hours.

200 PPM (0.02% H₂S) Kills smell quickly. Stings eyes and throat. Respiratory irritation. Death after one to two hours of exposure.

500 PPM (0.05% H₂S) - Dizziness. Breathing ceases within a few minutes. Requires prompt artificial respiration. Loss of muscle control, making self-rescue impossible.

1000 PPM (0.10% H₂S) - Unconsciousness at once, followed by death within minutes.


4. EXPOSURE WARNING

H₂S CAN PARALYZE THE SENSE OF SMELL. DO NOT USE THE SENSE OF SMELL TO DETECT H₂S.

5. H₂S DETECTION AND ALARM SYSTEMS

In most refineries emergency employee alarms are installed to meet the regulatory standards. The alarms provide warning for the necessary emergency action according to the site emergency action plan and provide time for employees to safely escape from the workplace or the immediate area.

Systems are also used on drilling locations, offshore platforms and produce H₂S, and some plants. It is not readily used on land production leases. Signs are and should be posted stating the presence of poison gas and urging caution.

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6. WARNING CONDITIONS

There are three conditions that you must be aware of when working around H₂S. The following information identifies the level of danger and alarms associated with each condition.

Condition Green

1. Possible Danger
2. No Alarms

Condition Yellow

1. Moderate Danger
2. H₂S up to 50 PPM
3. Intermittent Audible Alarm and Yellow Flashing Light

Condition Red

1. Extreme Danger
2. H₂S at 50 PPM or Above
3. Continuous Audible Alarm and a Red Flashing Light

7. HYDROGEN SULFIDE DETECTION DEVICES

Fixed H₂S detection devices (monitor and indicator) are designed to detect H₂S concentrations in air and established TWA (time weighted average) (10 PPM) and STEL (15 PPM).

The alarm should be capable of being perceived above the ambient noise or light levels in the affected area. The alarm should be distinctive and recognizable as a sign to evacuate the area and to start emergency status emergency procedures.

8. PERSONAL MONITORS

Personal monitors are also available in many types. They are also designed with the employee's safety in mind. Familiarize yourself with the equipment available at your current work assignment.

9. PLANT MONITORS

Plant monitors are available in many types and are designed with the employee's safety in mind. Familiarize yourself with the equipment available at your current work assignment.

In order to respond effectively in an emergency situation, every individual at the site should know their specific responsibilities. Whether or not an individual has an assigned duty, each individual should know what to do in the even of an emergency.


10. EVACUATION

Follow these procedures in the even of a hydrogen sulfide release that requires evacuation:

1. Hold your breath and quickly leave the area containing H₂S. Do not inhale.
2. Move quickly to the upwind "Safe Breathing Area" to receive instructions.
3. Always be conscious of the wind and constantly monitor wind direction. Wind socks and streamers show which direction the wind is blowing so that you can determine the proper safe breathing area.

11. SCBA ESCAPE

1. When in an area, on some client's premises, which has required you to be trained to use or wear an escape respirator such as an SCBA, put on your SCBA and help anyone who appears to be affected by the gas.
2. Before taking off your mask, ensure that the air you will breathe is safe.
3. Always be conscious of the wind and constantly monitor wind direction. Wind socks and streamers show which direction the wind is blowing so that you can determine the proper safe breathing area.

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12. EMERGENCY RESCUE AND FIRST AID

WARNING To prevent risk and injury to other personnel, re-entry into an area of unknown concentration of H₂S will require the use of self-contained breathing equipment and backup personnel.

1. Wear a full rescue unit (minimum 30-minute breathing apparatus) before attempting a rescue.
2. Remove the victim immediately to fresh air.
3. If breathing, maintain the victim at rest and administer respiration immediately.
4. If the victim is not breathing, start artificial respiration immediately.
5. Call an ambulance and get the victim medical treatment.
6. Keep the victim lying down with a blanket or coat under the shoulders to keep airway passage open. Conserve the victim's body heat and do not leave the victim unattended.
7. If the eyes are affected by H₂S, wash them thoroughly with clear water. For slight eye irritation, cold compresses are helpful.
8. A victim should not return to work until authorized to do so by a physician, even if the victim has had minor exposure and has not completely lost consciousness.

13. PPE (PERSONAL PROTECTIVE EQUIPMENT)

Depending on the exposure i.e., the amount of gas in the air and the type of work, employees will be required to wear different levels of PPE. Examples of protection include:

1. When the exposure level is near or above 10 PPM, you will be required to wear self contained fresh air gear.
2. Wear chemical goggles or a face shield when eye contact with this material is possible.
3. Avoid skin contact. Wear proper clothing such as impervious gloves, long sleeves, apron, and boots.

14. VENTILATION (INDOOR)

Use adequate general and local exhaust ventilation to keep atmospheric vapor concentrations below the occupational exposure limits.

15. EYEWASH AND SHOWERS


Safety showers and eyewash stations must be available in the vicinity of a potential exposure to the material. Familiarize yourself with the location of these facilities before starting the job.

16. TRAINING

All employees will be provided awareness training in this program in order to be familiar with the potential hazards and proper safe work procedures to follow if exposed to this health hazard. The training will be provided prior to working in any job with potential exposure to H₂S operations.

The purpose of hydrogen sulfide training is to familiarize employees with the governmental regulations affecting H₂S operations. Employees will learn the necessary skills to recognize, detect, and use the proper safety equipment in the event of an H₂S incident.

END SECTION

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|  | Document Title: | | SAFETY PROCEDURES MANUAL | |
| | Section: | | 31 Benzene Awareness | |
| | Revision Date: | | 12-1-2010 | Revision: |

This safety guideline is intended to provide suitable information to all Dahl Electric Inc. employees regarding the potential toxic effects of Benzene so that adequate measures can be taken to limit exposures through controls in the workplace.

1. GENERAL

Of all the hydrocarbons, Benzene poses the most serious long-term threat. Exposure over time, to even low levels of Benzene can cause leukemia, blood changes and aplastic anemia.

2. CHARACTERISTICS

Benzene is a colorless to light-yellow liquid with a pleasant sweet odor.

- 1) Formula (C6H6)
- 2) CAS No.: 71-43-2

Benzene is a flammable liquid that can accumulate static electricity. Benzene vapors are heavier than air and may travel to a source of ignition and flash back. The vapors are readily dispersed by wind movement and/or air currents. Liquid benzene tends to float on water and may travel to a source of ignition and spread fire. Benzene is highly reactive with no oxidizing materials.

3. USES:

Benzene is a component of gasoline, both in the manufacturing process and found naturally in crude oil; Benzene is also used as a feed stock for chemical manufacturing.

4. HEALTH EFFECTS:

WARNING: Benzene is a cancer-causing agent in humans. All contact should be reduced to the lowest possible level. The above exposure limits are for air levels only. Skin contact may also cause overexposure.

Benzene is one of the most hazardous of all petroleum products because of its adverse health hazards and high flammability.

The following adverse health affects are important to remember where there may be a potential exposure to Benzene:

- 1) **Acute:** At high concentrations (1000 PPM) Benzene has an acute effect on the central nervous systems causing headaches, dizziness, drowsiness, unconsciousness, and possible death. Acute exposure can also cause breathlessness, irritability, and giddiness.
- 2) **Chronic:** Benzene has the chronic exposure effect on bone marrow (aplastic anemia leukemia). Chronic exposure can also cause convulsions, liver damage, heart damage, blood diseases (aplastic anemia), and cancer (leukemia). These symptoms can take months or years to surface and can develop without physical or visible indications.
- 3) Repeated skin contact leads to irritant contact dermatitis (rash); as with any petroleum solvent (which Benzene is also classified as), it will leach the natural oils out of the skin. Direct contact with the skin can cause erythema and/or blistering.
- 4) Benzene is irritating to eyes and mucous membranes.
- 5) Flammable/dangerous fire risk: benzene has a very low flash point making it dangerous to have any open flame, spark or source of ignition when vapors are present.
- 6) Explosive limits in air 1.5 to 8% by volume: benzene is highly flammable at low levels of vapor quantity in air.

7) PERSONAL PROTECTIVE MEASURES

Dahl Electric employees are not permitted to work in areas where there may be a potential for Benzene exposure. It is the responsibility of the Contracting Company's Project Manager and the on-site supervisor/foreman to see that any jobsite that may expose employees to Benzene is not manned with personnel until it is proven that it is safe to work within the acceptable OSHA limits without personal protective equipment.


8) SPECIAL REQUIREMENTS

If it is necessary to perform any work where the exposure to Benzene is above the OSHA acceptable limits, then **Dahl Electric** must implement a comprehensive OSHA mandated special safety policy and procedure that includes exposure monitoring, formal medical program, special personal protective equipment, and much more.

9) TRAINING

All employees will be provided awareness training in this program in order to be familiar with the potential hazards and proper safe work procedures to follow if exposed to this health hazard.

END SECTION

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|---|------------------------|---------------------------------|------------------|----------|
|  DAHLEE1926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 32 Workplace Violence | | |
| | Revision Date: | 12-1-2010 | Revision: | 0 |

Introduction

Dahl Electric, Inc. will not tolerate violence between co-workers in the workplace and makes every effort to maintain a safe and violence free work environment for our employees without disruptive behavior, threats, violence or verbal abuse. Training is designed to help each worker develop the skills to maintain a workplace free of violence for all of us.

Content:

1. Program Description
2. Training
3. Certification and Record Keeping

1. Program Description

Every worker is responsible for not only for their own reasonable behavior in the workplace but for behavior that encourages and assists his/her fellow workers in maintaining a calm, productive and non-violent workplace.


2. Training

1. The Safety Representative shall provide training to all newly hired employees which includes:
2. The Workplace Violence policy, including how it can be accessed.
3. Instruction on how to calm situations that may lead to confrontation and violence
4. How and to whom reports of workplace incidents which may lead to extreme tension, violence or near violence should be made.
5. Disciplinary action for violations.
6. Employees shall be re-trained when the Safety Representative determines the need.

3. Certification and Record Keeping

1. The Safety Representative shall certify employee training and keep records indicating:
2. Names of employees trained.
3. Date(s) of training.

END SECTION

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|---|------------------------|--|------------------|----------|
|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 33 Employee Safety Concerns Procedure | | |
| | Revision Date: | 10-1-10 | Revision: | 0 |

Introduction

The purpose of this procedure is to provide employees with a resource for requesting an investigation of suspected unsafe working conditions.

Content

1. Program Description
2. Training
3. Certification and Record Keeping.

1. Program Description

When unsafe conditions or other safety concerns are identified it is each employee's responsibility to act promptly to correct the unsafe situation. Immediate action to correct the unsafe situation is always the first response.

This Employee Safety Concerns Procedure is to be followed when immediate action is not possible, or at times when an unsafe or potentially unsafe situation may require additional assistance from the Safety Representative to effect correction.


2. Training

1. The Safety Representative shall provide training to all newly hired employees which includes:
 2. This Employee Safety Concerns Procedure, including how it can be accessed.
 3. When written reports of safety concerns should be made and in what format.
 4. To whom the reports of safety concerns should be provided.
 5. Discipline for failure to report safety concerns.
 6. Employees shall be re-trained when failure to report safety concerns in a timely way is identified.

3. Certification and Record Keeping

The Safety Representative shall certify and record employee training at hiring.

END SECTION

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|---|------------------------|-----------------|---------------------------------|----------|
|  | Document Title: | | SAFETY PROCEDURES MANUAL | |
| | Section: | | 34 Ammonia Awareness | |
| | Revision Date: | 11-26-15 | Revision: | 0 |

Introduction

The purpose of this procedure is to establish awareness for employees who may due to their job responsibilities come in contact with Ammonia.

Ammonia- “also known as Azane & Anhydrous Ammonia, is a colorless gas with a pungent smell which is detectable in as little as 5 ppm concentrations.” Ammonia is both caustic and hazardous to your health and is an irritant to the nose, eyes and skin. It is readily absorbed into the moisture in the skin, eyes and mucus membranes and in heavy concentrations can cause severe burns. Ammonia is slightly flammable.

Content

1. Program Description
2. Exposure Control
3. PPE
4. Training
5. Certification and Record Keeping.

1. Program Description


When unsafe conditions or other safety concerns are identified it is each employee’s responsibility to act promptly to correct the unsafe situation. Immediate action to correct the unsafe situation is always the first response.

This Ammonia Awareness Procedure is to be followed when immediate action is not possible, or at times when an unsafe or potentially unsafe situation may require additional assistance from the Safety Representative to effect correction.

2. Exposure Control

If you have been exposed to a large release of ammonia such as from a tanker truck rollover or from a leaking tanker rail car, take the following steps:

1. Quickly move away from the area where you think you were exposed. If the release was indoors, go outside. If you are near a release of ammonia, emergency coordinators may tell you to either evacuate the area or to "shelter in place." To "shelter in place" means to remain indoors to avoid being exposed to the chemical. While indoors, shut and lock all doors and windows; turn off air conditioners, fans and heaters; and close fireplace dampers.
2. Quickly remove any clothing that may have ammonia on it. If possible, clothing that is normally removed over the head (like t-shirts and sweaters) should be cut off the body to prevent additional contact with the agent.
 - i. Place your clothing inside a plastic bag and seal the bag tightly.
 - ii. Do not handle the plastic bag, and wait for instructions on proper disposal.
 - iii. Disposing of your clothing in a sealed bag helps protect you and other people from any additional exposure.

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| | Revision Date: | 11-26-15 | Revision: | 0 |

- iv. Store the bagged clothing in a secure location away from people, especially children.
- v. Quickly wash any ammonia from your skin with large amounts of soap and water, and flush your eyes with large amounts of water.
- vi. Remove and dispose of contact lenses.
- vii. Wash eyeglasses with soap and water before wearing.
- viii. Do not use bleach to remove ammonia from your skin.
- ix. If needed, seek medical attention right away.

3. PPE

- 1. Wear chemical safety goggles or a full-face shield with safety goggles.
- 2. Chemical protective gloves, apron, and boots.
- 3. NIOSH approved Self-Contained Breathing Apparatus (SCBA) must be carried when working on ammonia storage containers and transfer equipment.

4. Training


The Safety Representative shall provide training to all newly hired employees which includes:

- 1. This Employee Safety Concerns Procedure, including how it can be accessed.
- 2. When written reports of safety concerns should be made and in what format.
- 3. To whom the reports of safety concerns should be provided.
- 4. Discipline for failure to report safety concerns.
- 5. Employees shall be re-trained when failure to report safety concerns in a timely way is identified.
- 6. Site specific safety/emergency plans and where they can be accessed.

5. Certification and Record Keeping

The Safety Representative shall certify and record employee training at hiring.

END SECTION

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|  | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | 35 Bloodborne Pathogens | | |
| | Revision Date: | 12-10-15 | Revision: | 0 |

Bloodborne Pathogens

Per our policy, our employees render First Aid or CPR on a Good Samaritan basis only. This information is provided in the event that an employee chooses to render aid which might put him or her at risk of hazard from bloodborne pathogens. The exposure control plan shall be made available and accessible to all employees.

Our Purpose:

To protect exposed employees from hazards associated with bloodborne pathogens, in particular HIV and Hepatitis B Virus. To protect employees who may choose to administer first aid resulting from an accident, such as, a serious laceration from work tools.

Definitions:

- Blood: Human blood, human blood components, and products made from human blood.
- Bloodborne Pathogens: Pathogenic microorganisms that are present in the human blood and can cause disease in humans.
- Contaminated: The presence or the unreasonably anticipated presence of blood or other potentially infectious materials on an item or surface
- Occupational Exposure: reasonably anticipated skin, eye, mucous membrane, or potential contact with blood or other potentially infectious materials that may result from the performance of an employee's duty.
- Potential: Piercing mucous membranes, or the skin barrier through such events as needle sticks, human bites, cuts or abrasions.


Exposure Determination:

Dahl Electric, Inc. employees have very little risk in being exposed to bloodborne pathogens, unless in close proximity of an occupational accident or when choosing to administer first aid practices. Employees administering first aid are the affected employees who are considered exposed or will be potentially exposed, to blood and/ or other potentially infectious materials.

Exposure Control:

- Universal precautions must be observed to prevent contact with blood or other potentially infectious materials.
- When at all possible victims of minor injury shall perform first aid to themselves under the supervision of a certified first aid individual.
- When first aid assistance is needed first aid trained employee must wear the appropriate **Personal Protective Equipment**.
- Disposable rubber or vinyl gloves.
- Pocket masks or mouth pieces for CPR.
- All employees exposed to blood or other potentially infectious materials must wash and clean exposed areas of their bodies before returning to work.
- All work areas, materials and equipment must be cleaned after contact with blood or other possibly infectious material.
- All contaminated materials must be properly collected, sealed in a plastic container for proper disposal.

Engineering Controls:

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- Dahl Electric will provide hand washing facilities where possible. In case hand-washing facility is impractical First Aid Kits will provide antiseptic cleansers or towelettes.
- Proper PPE will be provided: gloves, face shields for CPR, eye protection.
- Orientation of employees to first aid supplies and PPE in the **Safety Orientation checklist**.

Post Exposure Evaluation and Follow up:


Immediately available after an exposure incident the employee will be provided a confidential medical evaluation and follow up including.

- Documentation of the route of exposure, and the circumstances of the exposure incident.
- Identification and documentation of the source individual.
- Medical evaluations, testing and post exposure treatments will be made available to exposed employee.

GENERAL WORK PROCEDURES

Dahl Electric personnel must follow these procedures for controlling exposure to bloodborne pathogens:

- Supervisors must ensure that their employees are trained in proper work practices, universal precautions, the use of personal protective equipment, and proper cleanup and disposal techniques.
- Engineering controls will be examined and maintained on a regular schedule to ensure their effectiveness.
- The company will provide resuscitation equipment and other ventilation equipment to eliminate the need for direct mouth-to-mouth contact for employees whose jobs would require them to perform resuscitation.
- Do not eat, drink, smoke, handle contact lenses or apply cosmetics in areas where exposure to bloodborne pathogens is possible. Do not store food and drinks in refrigerators or cabinets where blood and other potentially infectious materials are stored.
- Wear disposable latex or vinyl gloves if:
 1. You have cuts, abrasions, chapped hands, dermatitis or similar conditions;
 2. You are examining a patient with an open skin wound and active bleeding;
 3. You are handling blood, blood products or body secretions.
- Wear gowns, aprons or lab coats whenever there is a possibility that bodily fluids could splash on an employee.
- Perform procedures involving blood and other potentially infectious materials in such a manner that will minimize splashing or spraying.
- Wear protective clothing if entering a laboratory or work area where potentially infectious materials are handled.
- Wash your hands as soon as possible after handling potentially infectious materials, and after removing protective clothing and equipment.
- Remove all protective equipment when leaving the work area and, if the equipment is contaminated, place it in a proper storage container for washing, decontamination or disposal.

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- Remove contaminated clothing before entering other areas of the building or leaving the building.

HEPATITIS B (HBV) VACCINATIONS

Dahl Electric Inc. will provide, at its own expense, hepatitis B vaccinations to employees covered under this program and who choose to be vaccinated. The company will document that it offered the vaccine, as well as the employees’ decision to accept or decline and the date of vaccination.

REPORTING

Any employee who has suffered a cut, needle stick or mucous membrane exposure to another person’s bodily fluids, or who has been exposed to human blood and blood products, must report the incident immediately to the company (nurse, physician, health & safety director). An employee covered under this program, or an employee acting as a “Good Samaritan,” who has been exposed on the job to HIV, HAV, HBV or HCV will be tested at the time of exposure to determine if the virus has been transmitted. The employee will be re-tested at six weeks, 12 weeks and six months after exposure. All testing will be performed at company expense. The company will also contact the exposure source and request that that person to be tested, at company expense. The testing for this person is not mandatory, however, and refusal will not affect his or her employment. Test results will be provided to source and exposed employees within five business days of their receipt. Confidentiality will be maintained for both the exposed employee and the exposure source during all phases of the post-exposure program.


Training

The Safety Representative shall provide Bloodborne Pathogen training to all newly hired employees and annually, which includes:

- Company policy
- Types and transmission of bloodborne pathogens
- General safety rules
- Universal precautions
- Use of personal protective equipment (PPE)
- Medical waste disposal procedures
- Post-exposure treatment and procedures
- HBV vaccinations.

Certification and Record Keeping


The Safety Representative shall certify employee training and keep records indicating:

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- Names of employees trained.
- Dates of training.

Training records shall be kept for a duration of no less than 3 years.

Medical records shall be kept for a duration of no less than 30 years.

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| | Section: | 37 Subcontractor Management Plan | | |
| | Revision Date: | 11-26-15 | Revision: | 0 |

Introduction

The purpose of this program is to ensure that Dahl Electric, Inc. continues to improve subcontractor health, safety and environmental performance and to establish a standard for pre-qualification, evaluation/selection and development of our subcontractors.

Content

1. Program Description
2. Training
3. Certification and Record Keeping.

1. Program Description


All Dahl Electric, Inc. subcontractors are to be managed in accordance with this program. The use of subcontractors must be pre-approved by Dahl Electric, Inc. Approval requirements include:

- a. A formal safety review of the subcontractor being performed by Dahl Electric, Inc. safety department.
- b. The scope of the review was commensurate with the hazards and risk exposure.
- c. Subcontractor has been/will be oriented to the safety policies, expectations and requirements of Dahl Electric, Inc.
- d. The subcontractor agrees to abide by our Drug and Alcohol policy and onsite safety rules throughout the duration of the work.
- e. The subcontractor agrees to provide TRIR, EMR, DART and Fatality Rate statistics when required.

Any subcontractor that has a “Non-Approved” safety status will not be used on any Dahl Electric, Inc. site.


2. Procedure

- a. Subcontractors will be pre-qualified by reviewing their safety programs, safety training documents and safety statistics.
- b. Dahl Electric, Inc. reserves the right to change a subcontractor’s status to “Non-Approved” if the subcontractor shows insufficient progress towards accepted mitigation plan or other agreed upon criteria.
- c. Contractors are required to follow or implement the work practices and systems described below while performing work at Dahl Electric, Inc. worksites:

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- i. Attend an safety orientation, pre-job meeting or kick-off meeting provided by Dahl Electric, Inc. prior to any work beginning
- ii. Monitor employees for substance abuse and report nonconformities to Dahl Electric, Inc.
- iii. Ensure personnel have the required training and competency for their work
- iv. Participate in Dahl Electric, Inc. tailgate safety meetings, job safety analysis or hazard assessments and on the job safety inspections.
- v. Perform a pre-job safety inspection that includes equipment
- vi. Participate in the BBS hazard reporting system
- vii. Report all injuries, spills, property damage incidents and near misses
- viii. Comply with onsite and Owner Client safety rules
- ix. Implement Dahl Electric, Inc. safety practices and processes as applicable
- x. Clean up and restore the worksite after the job is over
- xi. Ensure compliance with regulations at all times
- xii. Post job safety performance reviews shall be conducted for subcontractors.

END SECTION

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|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: 38 | 38 NFPA70E | | |
| | Revision Date: | 10-31-17 | Revision: | 1 |


NFPA 70E POLICY

1. Protection Against Arc Flash

- a. Policy: An arc flash is a “dangerous condition associated with the release of energy caused by an electric arc.” An arc flash is an explosion causing severe burns, injuries and/or death depending on the severity. Most workers realize that electrical shock is potentially life threatening, but many do not understand that wearing clothing that is not flame resistant can result in severe harm or death if it is ignited in an electrical arc flash.
- b. Purpose: While it is the policy of Dahl Electric Inc. to de-energize the power source before performing any work on the system, we understand that at times it is necessary to be exposed to the energy source (i.e. Investigative work). Before the point of exposure, we need to protect the worker from a potential arc flash that is always possible due to the presence of a power source. The means of proper PPE and levels of protection are simplified with the use of fire resistant garments that meet the hazard risks. Keep in mind that the use of these suits, are only needed when you are being exposed to energy, or you are attempting to tie-in or are making contact with the power source. Once the potential for an arc flash is either removed or isolated, and the worker is protected, the protective suit is no longer needed (i.e. the panel cover is back on).

It is the policy of Dahl Electric Inc. that all employees use the following PPE in order to protect themselves against Arc Flash occurrences.

- c. Exposure: to under 600 volts:
 - i. Nomex full body jump suit
 - ii. Properly rated gloves
 - iii. Dielectric hard hat
 - iv. Full amber face shield
 - v. Dielectric booties to slip over work boots
- d. Examples of work performed at this level: (examples not intended to be all inclusive of every type of work!)
 - i. Removing any panel covers or barriers of energized equipment to perform investigative functions or inspections.
 - ii. Working in a panel with the line side energized and the panel cover removed.
 - iii. Installing a breaker into an energized electrical panel.
 - iv. Pulling cables or wiring into energized panels.
 - v. Pulling or installing fuses into energized parts.
- e. Exposure to over 600 volts:
 - i. The level of protection for 600 volts and above will be a full body 40cal. High Voltage Suit complete with a full Head Hood, Dielectric booties, and properly ratted High Voltage gloves.
 - ii. Examples: Work performed at this level: (examples not intended to be all inclusive of every type of work!)

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- i. Removing any gear covers or barriers of energized equipment to perform investigative functions or inspections.
 - ii. Installing protective blankets or insulating devices on Buss work (i.e. rubbering up) in an active High Voltage Substation.
 - iii. Racking in a breaker into an energized electrical cabinet. d. Pulling cables or wiring into energized switchgear.
 - iv. Pulling or installing cut-outs on a utility pole.
 - v. Contact your Foreman or supervisor to obtain a Dahl Electric Inc. Arc Flash Protection Kit which will have all of the above mentioned PPE. Check the kits before use to insure that all of the high voltage PPE has a current inspection certification. Do not use if it has expired!

- f. Employees shall be trained in safety-related work practices and procedural requirements as necessary to provide protection from the electrical hazards associated with their respective jobs. Employees shall be trained to identify and understand the relationship between electrical hazards and possible injury. Documentation shall be made when the employee demonstrates proficiency, be maintained for the duration of the employee's employment, and contain each employee's name and date of training.
 - i. Retraining. An employee shall receive additional training:
 - i. (or retraining) under any of the following conditions: If the supervision or annual inspections indicate that the employee is not complying with the safety-related work practices
 - ii. If new technology, new types of equipment, or changes in procedures necessitate the use of safety-related work practices that are different from those that the employee would normally use
 - iii. If he or she must employ safety-related work practices that are not normally used during his or her regular job duties
 - ii. Retraining should be conducted within three years. Health & Safety Policy and Procedures Manual


- g. The contract employer shall advise the host employer of:
 - i. Any unique hazards presented by the contract employer's work,
 - ii. Any unanticipated hazards found during the contract employer's work that the host employer did not mention, and
 - iii. The measures the contractor took to correct any hazards reported by the host employer to prevent such hazards from recurring in the future.

- h. Unqualified persons shall not be permitted to enter spaces that are required to be accessible to qualified employees only, unless the electric conductors and equipment involved are in an electrically safe work condition


- i. Qualified personnel permitted to work within the Limited Approach Boundary of exposed energized electrical conductors and circuit parts operating at 50 volts or more shall, at a minimum, be additionally trained in all of the following:

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- a. The skills and techniques necessary to distinguish exposed energized electrical conductors and circuit parts from other parts of electrical equipment.
 - b. The skills and techniques necessary to determine the nominal voltage of exposed energized electrical conductors and circuit parts.
 - c. Only qualified persons shall perform tasks such as testing, troubleshooting, and voltage measuring within the limited approach boundary of energized electrical conductors or circuit parts operating at 50 volts or more or where an electrical hazard exists.
 - d. The approach distances specified in Table 130.2 C and the corresponding voltages to which the qualified person will be exposed.
 - e. The decision-making process necessary to determine the degree and extent of the hazard and the personal protective equipment and job planning necessary to perform the task safely.
- j. Dahl Electric Inc. safety related work practices for working within the Limited Approach Boundary are the following:
- i. Conduct daily evaluations and safety inspections through the shifts.
 - ii. Anticipating unexpected events and conduct a job hazard analysis.
 - iii. All electrical parts are considered live until zero energy is verified.
 - iv. Work permits shall be utilized and posted on site (i.e lockout/tagout & hotwork).
 - v. Electrical flash arc hazard analysis will be conducted and the appropriate personal protective equipment identified.
- k. Hazard Analysis should contain event severity, frequency, probability and avoidance to determine the level of safe practices employed. A hazard/risk evaluation shall be completed before work is started within the Limited Approach Boundary of energized electrical conductors and circuit parts operating at 50 volts or more or where an electrical hazard exists.
- l. A job briefing should be held before starting each job and include all employees involved. The briefing should cover hazards associated with the job, work procedures involved, special precautions, energy source controls, and PPE requirements
- m. Test instruments, equipment, and their accessories shall meet the requirements of ANSI/ISA-61010-1-Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use -Part 1 General Requirements, for rating and design requirements for voltage measurement and test instruments intended for use on electrical systems 1000 Volts and below. When test instruments are used for the testing for the absence of voltage on conductors or circuit parts operating at 50 volts or more, the operation of the test instrument shall be verified before and after an absence of voltage test is performed.

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- n. All insulating PPE must be inspected before each day's use and immediately following any incident that can reasonably be suspected of having caused damage. Insulating gloves shall be given an air test, along with the inspection.
- o. Such tests include:
 - i. Blankets-before first issue/every 12 months thereafter,
 - ii. Gloves-before first issue and every 6 months,
 - iii. Sleeves before first issue and every 12 months. Covers and Line hose shall be testing if insulating value is suspect.
- p. Work on energized electrical conductors or circuit parts that are not placed in an electrically safe work condition, shall be considered energized electrical work and shall be performed by written permit only.
- q. Employees shall not enter spaces containing electrical hazards unless illumination is provided that enables the employees to perform the work safely. Where lack of illumination or an obstruction precludes observation of the work to be performed, employees shall not perform any task within the Limited Approach Boundary of energized electrical conductors or circuit parts operating at 50 volts or more or where an electrical hazard exists.
- r. All PPE must meet the requirements in Table 130.7(C)(14).
- s. Alerting techniques are an effective way to warn employees of the dangers present. Alerting techniques include safety signs, tags, barricades and attendants. Barricades must be used in conjunction with Safety Signs and must never be used by themselves. Any technique used must not increase the potential for employee injury.
- t. Field work will be audited on an annual basis.

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Process Safety Management Overview

1. **REGULATORY STANDARD:** OSHA - 29 CFR 1910.119
2. **General:** Process safety management is the proactive identification, evaluation, and mitigation or prevention of chemical releases that could occur as a result of failures in process, procedures, or equipment. The major objective of process safety management of highly hazardous chemicals is to prevent unwanted releases of hazardous chemicals especially into locations which could expose our employees and or community to serious hazards.

Unexpected releases of toxic, reactive, or flammable liquids and gases in processes involving highly hazardous chemicals have occurred numerous times in industry in recent years. Incidents occur in various industries that use highly hazardous chemicals which meet the criteria for highly hazardous chemicals. The Occupational Safety and Health Administration (OSHA) estimates that losses can be reduced tremendously if proper safety precautions and preparation at job sites are initiated.

The host employer shall assure that each contract employee is instructed in the known potential fire, explosion or toxic release hazards related to his/her job and the process and the applicable provisions of the emergency action plan.

3. **Training:** Whenever Dahl Electric, Inc employees perform work in and around processes that involve highly hazardous chemicals, they will need to be provided with site specific training so that they can accomplish the desired job tasks without compromising the safety and health of employees.


This training will be provided by the client prior to Dahl Electric, Inc employees working on site and will include provisions of the client's site-specific emergency action plan. MSDS Sheets for all highly hazardous chemicals will be made available to employees and be kept on site for reference.

Dahl Electric, Inc will document that each employee has received & understood the required training. Dahl Electric, Inc shall prepare a record which contains the identity of the contract employee, the date of training, and the means used to verify that the employee understood the training.

Dahl Electric, Inc will only use qualified individuals that have been trained in proper safe work practices to do process safety work.

4. **Permitting system:** Dahl Electric, Inc employees will abide follow safety work practices during operations such as lockout/tagout, confined space entry, opening process equipment, or piping, and controls over entrance to facility.

A permit system or work authorization system for these activities may be instituted. The use of a work authorization system keeps a client informed of Dahl Electric, Inc

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employee activities, and as a benefit the client will have better coordination and more management control over the work being performed in the process area.

Dahl Electric, Inc employees will not perform hot work until a hot work permit is obtained. The permit shall document that provisions of CFR 1910.252(a) have been met.

5. **Incident near miss investigation:** Employees must immediately report all accidents, injuries, and near misses. An incident investigation must be initiated within 48 hours. **See Section 2 for Incident Investigation Protocols.** All Results from the investigation and any corrective actions taken will be maintained for a period of at least 5 years

6. **Notification:** Dahl Electric, Inc will inform the client of any unique hazards presented by their work, or of any hazards found by Dahl Electric, Inc work.

7. **Trade Secrets:** All Dahl Electric, Inc employees must respect the confidentiality of trade secret information when the process safety information is released to them.

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Rigging and Hoisting Equipment Overview

1. **RIGGING AND HOISTING:** These rules apply to all Dahl Electric, Inc. employees and subcontractors. **Note: Dahl Electric, Inc. employees will utilize mechanical means of lifting if at all possible. Manual Lifting is the last option.** Additional specific information can be obtained from the above referenced OSHA Standard.

A. **OSHA Reference:** 29 CFR 1926.251


B. Rigging and Hoisting:

1. The manufacturer's name and specifications applicable to the operation of the specific equipment will be attached to the equipment. Equipments shall be used per manufacture's intended use and shall never exceed the manufacture's load capacity.
2. Rated load capacities load test and recommended rules for safe operation will be conspicuously posted on all equipment at the operator's station.
3. A competent person experienced in rigging and hoisting shall be designated on all projects where rigging and hoisting is needed.
4. A competent person shall inspect all rigging and hoisting equipment prior to each use and during use to ensure that it is in safe condition. Any equipment found to be defective shall be removed from service immediately. An initial inspection following the guidelines specified in this program shall take place prior to use of any rigging and hoisting equipment. Monthly inspections are required to be completed and documented there after. The inspections are to be turned in to the site Supervisor or Safety Officer no later the 12 hrs after the inspection period.
5. Rigging equipment not in use shall be removed from the immediate work area so as not to present a hazard to employees and shall be properly stored.

C. Below The Hook Structural And Mechanical Lifting Devices

Suggested requirements include but are not limited to the following:

1. Shall conform to requirements of ASME/ANSI B30.20.**NOTE: Special lifting devices for shipping containers weighing 10,000 lbs or more that are used for radioactive materials maybe governed by ANSI N14.6 (Standard for Shipping Containers Weighing 10,000 Pounds or More for Nuclear Materials).**
2. Shall have the rated load capacity marked on the main structure where it is visible. If the lifter is made up of several lifters, each detachable from the group, these lifters shall also be marked with their individual rated loads.
3. A load test, not to exceed 125 percent of the rated load unless otherwise recommended by a manufacturer shall be provided.
4. A load test certificate indicating the date of load test, amount of load applied, and confirmation of lifter load rating shall be supplied.
5. Rated load should not be more than 80 percent of the maximum load sustained during the test.

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6. Hooks on overhaul ball assemblies, lower load blocks, or other attachment assemblies shall be of a type that can be closed and locked, eliminating the hook throat opening. Alternatively, an alloy anchor type shackle with a bolt, nut and retaining pin may be used
7. Shall have a complete or other permanent marking affixed to the lifting device displaying the following:
 - a) Manufacturer's Name
 - b) Serial Number/Identification Number
 - c) Lifter Weight if over 100 lbs. (45KG)
 - d) Rated load Capacity

D. General Construction

1. Shall be designed to withstand the forces imposed by the rated load.
2. Shall have a minimum design factor of 3 based on yield strength for all load bearing structural components.
3. Welding shall be in accordance with ANSI/AWS D1.
4. Guards for exposed moving parts such as, but not limited to gearing, projecting shafts, and chain drives that constitute a hazard under normal operating conditions should be guarded.
5. Electrical equipment and wiring shall comply with Article 610 of ANSI/NFPA 70.

E. Wire Rope


Suggested requirements include but are not limited to the following:

1. Wire rope shall meet or exceed the requirements of Federal Specification, RR-W-410 for wire rope, Mil Specification MIL-DTL-83420 for air craft cable and MIL-W-83140 for non-rotating stainless steel wire rope
3. Wire rope shall be made in the United States by a member of the Wire Rope Technical Board (except stainless steel, and unless recommended otherwise by a crane or hoist manufacturer). Stainless steel wire rope shall be made in the United States and shall be 302 or 304 grade stainless steel unless otherwise recommended by a crane or hoist manufacturer.
4. Wire rope shall have documentation from the manufacturer traceable to the material furnished and signed by the manufacturer's authorized representative. Documentation should reference as a minimum the diameter, number of strands, core, lay, grade, manufacturer's lot/run number, material number, and the nominal breaking strength of a sample.
5. Shall be shipped lubricated and with a protective covering, i.e. plastic or cardboard.

F. Chain Slings

Suggested requirements include but are not limited to the following:

1. Shall meet or exceed requirements of ASME/ANSI B30.9 and 29 CFR 1910.184.
2. Alloy steel chain slings shall have permanently affixed durable identification; stating size, manufacturer's grade, rated load, and angle upon which the rating is based, reach, number of legs, and sling manufacturer.


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3. Hooks, rings, oblong links, pear-shaped links, welded, or mechanical coupling links or other attachments shall have a rated load of at least equal to that of alloy steel chain with which they are used.
4. All welded components in the sling assembly shall be proof load tested as components or as part of the sling assembly.
5. Hooks attached to chain slings shall meet the requirements of ASME/ANSI B30.10.
6. The welded components of all new slings shall be proof tested by the component or sling manufacturer to 200 percent of the rated load.
7. The proof load for multiple leg slings shall be applied to the individual legs and shall be 200 percent of the rated load of a single leg sling.
8. A certificate of proof test shall be provided by the manufacturer or supplier referencing the specific sling identification number, date of test, and amount of load applied. (Employer shall retain a certificate of the proof test and shall make it available for examination.)

G. Synthetic Slings

Suggested requirements include but are not limited to the following:

1. Shall meet or exceed the requirements of 29 CFR 1910.184 and ASME/ANSI B30.9.
2. Should be manufactured from webbing specifically constructed for overhead lifting, featuring red core yarns.
3. Webbing shall have the following characteristics:
 - a) Sufficient certified tensile strength to meet the sling manufacturer's requirements;
 - b) Uniform thickness and width;
 - c) Full woven width, including selvage edges;
 - d) Webbing ends shall be sealed by heat, or other suitable means, to prevent raveling.
 - e) Thread used in the manufacture of synthetic web slings shall be the same generic type yarn as the sling webbing.
 - f) Stitches shall be lock-stitched and preferably continuous. When not continuous, it shall be back stitched at the ends to prevent raveling.
 - g) The load carrying splice shall be sewn with a pattern of sufficient strength to justify the manufacturer's rated capacities.
 - h) Shall have a minimum design factor of 5.
 - i) End fittings shall have sufficient strength to sustain twice the rated load of the sling without permanent deformation.
 - j) EACH SLING SHALL BE PERMANENTLY MARKED WITH THE FOLLOWING:
 - i. Manufacturer's name or trademark.
 - ii. Manufacturer's code or stock number.
 - iii. Type of synthetic web material.
 - iv. Rated loads for the type of hitches used.

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NOTE: Hand written, or ink embossed markings are not acceptable. Sling tags shall be indelibly marked and the lettering shall not wear off with use. The markings shall remain legible for the life of the sling.

- k) The manufacturer shall have on file a written system of sling traceability as well as a quality control procedure. Traceability should be specific mill lots.
- l) Fabric wear pads should be sewn into the bearing points of the sling eyes. Leatherwear pads are not recommended.
- m) Product warnings relative to the proper use, care, and maintenance shall accompany the shipment.
- n) Single leg and endless synthetic-web slings shall be proof tested to 200 percent of the rated load.
- o) Multiple leg bridle slings shall have the proof load applied to the individual legs. The proof load shall be two times the vertical rated load of a single leg sling.
- p) A load test certificate (LTC) shall be provided for each lot of slings supplied. The LTC shall reference as a minimum the date of proof test, amount of load applied, sling capacity, and lot/run number. The manufacturers authorized representative shall sign the LTC.
- q) NOTE: Sling lengths shall be within a specified tolerance. Synthetic sling manufacturer's normal length is ± 1 percent of the sling length.

H. Synthetic Polyester Round Slings

Suggested requirements include but are not limited to the following:

1. Slings should meet or exceed requirements of the Web Sling and Tie Down Association, recommended specification for round slings made of polyester fibers used for general lifting purposes.
2. Polyester round slings including those incorporating welded fittings shall be proof tested to 200 percent of the vertical rated capacity.
3. A load test certificate (LTC) shall be provided for each lot of slings supplied. The LTC shall reference at a minimum the date of proof test, amount of load applied, sling capacity and lot/run number. The manufacturers authorized representative shall sign the LTC.
4. The core(s) shall be formed from one or more ends of yarn, wound together on a plurality of turns. The core(s) should be uniformly wound to ensure even distribution of the load.
5. The cover(s) should be of the same fiber type as the load bearing core(s). When the cover is a different fiber type than the load-bearing core, follow the manufacturer's recommendations for use.
6. The cover should be made from one length of material.
7. When the core and cover are of the same fiber, the thread shall also be of that fiber type. When the core and cover are of different fiber types, the thread should be of the same fiber type as the cover.
8. All stitching shall be lock-stitched type and should be continuous. When not continuous, they shall be backstitched or overstitched to prevent raveling.
9. The design factor for new polyester round slings and polyester round slings incorporating fittings shall be a minimum of five (5).


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10. Each polyester round sling shall be permanently marked or labeled showing:
 - a) Name or trademark of manufacturer.
 - b) Manufacturer's code or stock number.
 - c) Rated capacities for the three basic hitches. (vertical, choker, vertical basket)
 - d) Core fiber type - if cover(s) is of a different fiber type, both fiber types shall be identified.
 - e) Length (reach) - bearing point to bearing point.
11. Each manufacturer shall internally identify their product with name or trademark for traceability.

I. Wire Rope Slings

Suggested requirements include but are not limited to the following:

1. Shall meet or exceed the requirements of 29 CFR 1910.184 and ASME/ANSI B30.9.
2. Wire rope purchased to fabricate slings shall be made in the United States by a member of Wire Rope Technical Board (Except stainless steel). Stainless steel wire rope shall be made in the United States and shall be 302 or 304 Grade stainless steel.
3. Wire rope shall meet the requirements of Federal Specification RR-W-410D or Military Specification MIL-W-83420.
4. Wire rope shall have documentation from the manufacturer traceable to the material furnished and signed by the manufacturer's authorized representative. Documentation shall reference as a minimum the diameter, number of strands, core, lay, grade, manufacturing lot/run number, master reel number and nominal breaking strength of sample.
5. Shall be shipped lubricated and with a protective covering, i.e. plastic or cardboard.
6. Slings should be either 6 x 19 or 6 x 37 classification.
7. Slings should be made of wire rope produced from EXIPS (Extra Improved Plow Steel) with an IWRC (Independent Wire Rope Center). Consideration may be given to other grades or types of wire rope, dependent upon the type of expected service due to the type of load, hitch, or environment.
8. Shall have a minimum of 5 to 1 safety factor.
9. Mechanical spliced single leg and endless wire rope slings, and swaged socket or poured socket assemblies shall be load tested to 200 percent of the rated vertical load.
10. Shall be individually tagged with a durable tag including the following information:
 - a) WLL (Working Load Limit)
 - b) Purchase order number or serial number
 - c) Manufacturer's name or ID
11. Shall have a load test certificate (LTC) for each lot of slings supplied. The LTC shall reference as a minimum the date of proof test, amount of load applied, sling capacity, & lot/run number, the manufacturers authorized representative shall sign the LTC.
12. Single leg hand tucked slings shall have a proof load equal to the rated load but shall not exceed 125 percent of the rated load.

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13. The proof load for multiple leg bridle slings shall be applied to the individual legs and shall be either 125 percent for hand tucked splice or 200 percent for mechanical splice, times the vertical rated load of a single leg sling of the same size, grade, and construction of rope. Any master link to which multiple leg slings are connected shall be proof loaded to 200 percent of the force applied by the combined legs
14. Multiple leg bridle slings shall be tagged with a durable tag on the master link indicating the working load limit for the total combined legs for each individual sling in a vertical configuration. The purchase order number or serial number and the manufacturer's ID should be supplied.

J. Shackles


Suggested requirements include but are not limited to the following:

1. Shackles shall meet or exceed the requirements of Federal Specification RR-C-271D.
2. Type of shackles covered by this specification include:
 - a) Class 1, Round Pin Anchor
 - b) Class 2, Screw Pin Anchor
 - c) Class 3, Safety Anchor
 - d) Class 1, Round Pin Chain
 - e) Class 2, Screw Pin Chain
 - f) Class 3, Safety Chain shackles.
3. Each shackle body shall be permanently and legibly marked in raised or stamped letters on the side of the shackle bow with the identifying manufacturer's name or trademark, shackle size, and the recommended safe working load.
 - a) Grade A regular strength shackle pins and bolts shall be unmarked;
 - b) Grade B high strength shackle pins and bolts shall be marked by the raised or stamped letters "HS" on the head.
 - c) Shackle markings shall be raised or stamped letters of the maximum height permitted by the size of the shackle component being marked.
 - d) Grade A shackles (Regular Strength), together with their pins and bolts shall be forged from carbon steel.
 - e) Grade B shackles (High Strength) together with their pins and bolts shall be forged from alloy steel.
4. Shackles shall have minimum 5 to 1 safety factor.
5. Shackle samples shall be subjected to proof loads of 200 percent of the rated capacity.
6. Shackle pins shall fit freely without binding and seat properly.
7. Shackles shall be sufficiently ductile so that, when fractured, the fractured member shall show a permanent distortion before breaking.

K. Turnbuckles - Type Iii Rigging

Suggested requirements include but are not limited to the following:

1. Turnbuckles used for rigging applications shall meet or exceed the requirements of Federal Specification FF-T-791B, Section 3.9.3.
2. Shall be fabricated from forged alloy steel.

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3. Shall be provided with a jam nut of a type, which does not depend upon deformation of the threads for security.
4. Certificate of proof test shall be provided by the manufacturer for selected samples from each lot. Certificate shall indicate as a minimum the size, WLL, test weight, and date of test.
5. Proof test loads shall be one-half the specified breaking strength for the end pull.
6. Turnbuckles shall have a minimum safety factor of 5 based on ultimate breaking strength.
7. Manufacturer's name or trademark and turnbuckle size shall be permanently marked on the body of the turnbuckle.

L. Wire Rope Clips (Clamps)

Suggested requirements include but are not limited to the following:

1. Shall meet or exceed requirements of Federal Specification FF-C-450D.
2. Shall be permanently and legibly marked with the size and manufacturer's identifying mark.
3. Wire rope clips should be shipped with application instructions and product warnings for each type or size clip.

M. Eye Bolts

Suggested requirements include but are not limited to the following:

1. Shall be fabricated from forged carbon or alloy steel and shall meet or exceed the requirements of ASTM specification A489 for "Carbon Steel Eye Bolts" or ASTM F541 "Standard Specification for Alloy Steel Eyebolts." and ANSI/ASME B18.15 "Forged Eye Bolts".
2. Eye bolts used for lifting service shall have the manufacturer's name or identification mark forged in raised characters on the surface of the eyebolt. Alloy steel eyebolts shall have the symbol "A" (denoting alloy) and the manufacturer's name or identification forged in raised letters on the surface of the eyebolt.
3. The safe working load shall have a safety factor of 5.


N. Hooks

Suggested requirements include but are not limited to the following:

1. Hooks used for lifting service shall meet or exceed the requirements of ANSI/ASME B30.10.
2. Manufacturer's identification shall be forged cast, or die stamped on a low stress non-wearing area of the hook.
3. When proof tests are used to verify manufacturing process, material, or configuration, hooks shall be able to withstand proof load application, without permanent deformation when a load is applied for a minimum of 15 seconds. Proof loads for hooks up to 50-ton capacity shall be 200 percent of the rated capacity.
4. Performance testing of hooks shall not be required except where necessary to conform to requirements for the equipment of which they are a part of.

O. Swivel Hoist Rings

Suggested requirements include but are not limited to the following:

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1. All hoist rings shall be individually proof load tested to a minimum of 200 percent of the rated capacity, but no more than 250 percent of the rated capacity.
2. Shall have a proof load certificate supplied from the manufacturer with each swivel Hoist ring.
3. Shall have the manufacturer's name or trademark permanently marked on the swivel Hoist ring.
4. Shall have a minimum safety factor of 4, based on ultimate breaking strength.
5. Shall be permanently marked by the manufacturer with the WLL and recommended Torque value.
6. Shall be packaged with proper application instructions and warning information.

P. Hoist Rings, Pear Shaped Links

Suggested requirements include but are not limited to the following:

1. Shall meet or exceed the requirements of RR-C-271-D.
2. Welded rings or links shall be subjected to a nondestructive weld test (NDT) and have documentation provided. Note: NDT is not required for forged rings or links.
3. Shall have a minimum safety factor of 5, based on ultimate breaking strength.
4. Rings shall be forged or welded from low alloy steel.
5. Should be marked by the manufacturer with the manufacturer's name or trademark and ring or link size.

Taglines shall be used for all lifts unless it creates an unsafe condition to assist in maintaining control of the load.

All employees shall be kept clear of loads about to be lifted and of suspended loads.



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521 E Victoria, Burlington, WA 98233

Phone 360-755-1145 Fax 360-755-9722

8-08

SAFETY MANUAL FORMS



Forms included
At the end of the Safety Manual

- Correction Notice
- Equipment Inspections
- Fall Protection Work Plan
- Forklift Daily Shift Checklist
- Off Work Injury Report
- Report of Accident or Near Miss
- Working Over Water



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521 E Victoria, Burlington, WA 98233

Phone 360-755-1145 Fax 360-755-9722

Correction Notice

Date _____

Supervisor/ Interviewer _____

Name _____

Circle one: Apprentice Journeyman Other

This is a report of action or failure to act which is of significant concern


The action or failure to act is: Circle: code violation safety violation policy violation

The reason this matter is of significant concern and how to correct the problem:

The consequences of further similar action or failure to act is: (probation, termination, unpaid leave)

Use reverse if more space is needed.

Both employee and interviewer SIGN. One copy to employee personnel file, one to employee.

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(1) The Site specific Fall Protection Plan: _____

(a) Identify all fall hazards in the work area.

(b) Describe the method of fall arrest or fall restraint to be provided.

(c) Describe the correct procedures for the assembly, maintenance, inspection, and disassembly of the fall protection system to be used.

(d) Describe the correct procedures for the handling, storage, and securing of tools and materials.

(e) Describe the method of providing overhead protection for workers who may be in, or pass through the area below the work site.

(f) Describe the method for prompt, safe removal of injured workers.

(2) Prior to permitting employees into areas where fall hazards exist the employer shall:

(a) Ensure that employees are trained and instructed in the items described in subsection (2)(a) through (f) of this section.

(b) Inspect fall protection devices and systems to ensure compliance with [WAC 296-155-24510](#).

FORKLIFT DAILY SHIFT CHECKLIST

Forklift Manufacturer _____ Date _____

Forklift Identifying Number _____ **Inspected by** _____

Industrial trucks shall be examined at least daily before being placed in service for that day. If the truck is used daily on more than one shift, it shall be inspected after each shift.

| OK | NOT OK | ITEMS TO BE CHECKED |
|-------|-----------|--|
| _____ | _____ | Tires |
| _____ | _____ | Horn |
| _____ | _____ | Lights |
| _____ | _____ | Battery |
| _____ | _____ | Controller |
| _____ | _____ | Lift System to include load limit switches, load engagement means, chains, cables, forks, etc. |
| _____ | _____ | Brakes (normal and emergency) |
| _____ | _____ | Steering Mechanism, Free play in steering |
| _____ | _____ | Leaks in hydraulic system. Check hydraulic fuel level |
| _____ | _____ | Leaks in fuel system, smell for leaks in propane system |
| _____ | _____ | Is truck clean, free of lint, excess oil and grease? |
| _____ | _____ | Overhead guards broken or damaged |
| _____ | _____ | Gauges working properly |
| _____ | _____ | Seat belts work properly |
| _____ | _____ | Is propane tank locked down in propane trucks? |
| _____ | _____ | Engine oil ok |
| _____ | _____ | Transmission fluid ok |
| _____ | _____ | Windshield wipers in good condition, if equipped |
| _____ | _____ | Label or identifying mark indicating approval by a testing laboratory present |
| _____ | _____ | All name plates and markings are in place and maintained in legible condition |
| _____ | _____ | Does truck emit hazardous sparks or flames from the exhaust system? |

List any other problems found with the truck.

Note: Any items found to be defective will require immediate notification to your Field Supervisor and the lift will be taken out of service until repaired.



DVE REPORT OF INJURY NOT RELATED TO JOB (OFF the job injury)

Employees who come to work after having experienced an injury OFF the JOB should report the nature and extent of injury to immediate supervisor. Take care to avoid re-injury or additional injury related to your previous incident. If there is any question of your work causing further damage to your health you should advise your supervisor immediately.

Date: _____

Supervisor Name: _____

Employees Name: _____

Job Title: _____

1. When were you injured off the job? _____

2. What is the type of injury? _____

3. Is the work you are doing likely to cause re-injury or additional harm? YES / NO

4. If answer to #3 is yes, you **must** advise your supervisor. Verified: _____

5. If answer to #3 is yes, you **must** provide a doctor's release before returning to work. Verified: _____

6. What work would you be able to perform which would not cause additional injury or aggravate your current injury? Normal duties _____ Duties with the following limitations _____


7. Date & time you sought medical attention: _____

8. Whom did you see? _____ Office/Hospital: _____

Employee Signature: _____ Date: _____

Date Supervisor received report: _____

Date Office received report: _____

| | | | | |
|---|------------------------|--|------------------|----------|
|  DAHLEEI926QD | Document Title: | SAFETY PROCEDURES MANUAL | | |
| | Section: | Report of Accident or Near Miss | | |
| | Revision Date: | 1-1-08 | Revision: | 0 |

Report of Accident or Near Miss

Today's Date: _____ Date of Incident _____ Time of Incident: _____

Location of accident / near miss (job name and location on jobsite) _____

Employees involved in the accident / near miss _____

Describe the accident / near miss _____

Accident and Near Miss: Describe your actions or the actions of others which lead to this accident/near miss. Be as complete and specific as possible. Use reverse to make a complete statement.

Accident: Was first aid required? _____

Did the accident require a doctor's treatment? _____

Do you suggest any changes to company procedure or safety policy as a result of this accident/ near miss? If yes describe here, attaching additional sheet if necessary.

Name of person completing report _____

Check those that apply: I am the job Supervisor The accident was reported to me
 by _____ I am an involved Employee
 I am a witness to the accident or near miss

Accident and Near Miss: Describe your actions or the actions of others which lead to this accident/near miss. Be as complete and specific as possible. Add pages if needed to make a complete statement.

Project: _____

Date: _____

Jobsite supervisor: _____

Employee trained: _____

Working Over Water

This project entails work both “over water” and ashore. “Over water” work is covered by a specific USL&H insurance policy and should be noted on your timecard as such.

“Over water” work also requires additional personal protective equipment in the form of life jackets and/or lanyards. For this project, life jackets are provided and must be worn any time work over the water is being performed.

SAFETY MANAGEMENT STANDARD

WORKING OVER WATER

1.0 Applicability

This procedure applies to projects where personnel will work above or immediately adjacent to water where a drowning hazard exists.

2.0 Purpose and Scope

This procedure is intended to protect employees from drowning while working above or adjacent to water.

3.0 Implementation

Field Activities - Implementation of this procedure is the responsibility of the Project Manager/Superintendent.

4.0 Requirements

- A. Review the project in the planning phase to determine if any work will occur above or immediately adjacent to water where a drowning hazard exists. In the case of work on this project, in general, a risk of drowning (ROD) is present when working on piers where employees may be exposed to falls into the water.
- B. If any activities pose a risk of drowning provide employees with an approved (USCG for U.S. operations) life jacket or buoyant work vest. Employees should inspect life jackets or work vests daily before use for defects. Do not use defective jackets or vests.

5.0 Documentation Summary

Records required in the Project Safety File: Copy of the fall protection plan designed for work activities – (as necessary)

6.0 Resources

- A. U.S. OSHA Standard - Working Over or Near Water - 29 CFR 1926.106 (http://www.osha-slc.gov/OshStd_data/1926_0106.html)
- B. Washington State Department of Labor and Industries WAC 296-155-235 Working over or adjacent to water

I have received training in safety practices for work “over water”, and will follow all applicable safety standards. _____ date: _____

Reviewed and Approved: Chris Dahl, Safety Representative _____