FOUSHEE

Founded in 1977

ACCIDENT PREVENTION PROGRAM (APP)

Table of Contents

SAFETY AND HEALTH POLICY STATEMENT

The purpose of this policy is to develop a high standard of safety throughout all operations of Foushée and Associates Company, Inc. and to ensure that no employee is required to work under any conditions, which are hazardous or unsanitary.

Foushée and Associates Company Inc. (Foushée) believes that the individual employee has the right to derive personal satisfaction from his/her job and the prevention of occupational injury or illness is of such consequence to this belief that it will be given top priority at all times.

It is Foushée's intention to initiate and maintain a complete accident prevention and safety-training program. Each employee from top management to the craftworker is responsible for the safety of those persons in their charge and co-workers around them. By accepting mutual responsibility to conduct business in a safe and healthful manner, we all will contribute to the well-being of all employees.

Compliance with the Company Accident Prevention Program and all subsequently issued safety rules, regulations, and procedures is mandatory for every employee.

It is important that every employee be constantly alert for potential hazards which are not referred to in any written practice or procedure and may result in injuries or property damage. Consult with your supervisor before proceeding whenever you have a question regarding the correct procedure to follow.

A thorough understanding of, and compliance with, safety rules, practices and procedures is the best insurance an employee can have in the prevention of accidents.

Most injuries are caused by unsafe acts rather than unsafe conditions. Therefore, safety rules, practices and procedures must be adhered to without exception. Take time to be safe and make safety your way of life!

Foushée

Eric Jones, President / CEO

1.0 Communication

Responsibilities for safety and health include an effective communication system for our workers, supervisors and management officials. All personnel are responsible to assure their messages are received and understood by the intended receiver. Specific safety and health responsibilities for company personnel are as follows:

2.0 Management Officials

2.01 Foushée and Associates Company, Inc. management participates in and supports their established safety and health programs. This is key to an effective safety culture. Management officials participate in safety and health matters at every opportunity.

2.02 Top management is committed to establishing a safe and healthy workplace. Each level of management has responsibilities to effectively have in place the following measures: Foushée's Accident Prevention Program, training for continuous skill and competency of all field employees, and address workplace hazards.

3.0 Project Superintendent

3.01 The Project Superintendent is responsible to effectively communicate and support the S&HP to the employees:

a. Implement and enforce the Foushée S&HP and assure safety and health rules, regulations, policies and procedures are understood, observed, and followed.
b. Require proper care and use of personal protective equipment is provided for all employees prior to the start of work or task.
c. Maintain housekeeping practices and keep egress pathways clear.
d. Identify, address, and communicate specific site-hazards and precautions as required to all supervisors, crew leaders and field employees.
e. Ensure incidents and accidents are reported immediately and investigated to determine cause, corrective actions, and develop lessons learned. Assure findings are reviewed with site-employees to prevent reoccurrence.
f. Conduct weekly tool-box safety meetings to provide education and awareness of safety-related items and maintain on documented meetings on file.
g. Conduct weekly walk-around jobsite safety inspections and maintain on file.
h. Provide safety orientations and training to all new hires prior to performing work and maintain on file.
i. Provide safety training for employees as required for each task as necessary and maintain on file.
j. Provide and make available the Foushée Accident Prevention Program for review and reference.
k. Consult with the Foushée Safety Director or Field Safety Manager for assistance with questions or concerns regarding safety and health procedures or regulations.

4.0 Foreman/ Lead

4.01 The Foreman/ Lead has the most direct contact with the field employees and is key to the success of an effective and proactive safety program. The Foreman/Lead is responsible for:

a. The safety and health of the employees.
b. Ensure employees are using safety equipment properly and effectively as required.
c. Positive reinforcement is required. Corrective action or disciplinary measures may be required to maintain the personal safety of the employee.
d. Monitor the behaviors and conditions and report to the Superintendent the need for change or modification.
e. Facilitate and participate in the weekly tool-box safety meetings and weekly walk-around jobsite safety inspections.
f. Document the results of each safety meeting by the next safety meeting or sooner.
g. Ensure effective communication on all safety related issues occurs.
h. Support and enforce housekeeping practices and keep egress clear.
i. Provide support to accident investigation and injury response.

5.0 Employees

5.01 Employees also play an active role in adhering to and effectively communicating health and safety items. Individual employees are in the best position to recognize safety hazards in their workplace. They also must exercise care and good judgment that are key to reducing workplace injuries. It is the responsibility of each employee to commit to and follow ALL safety rules, regulations, policies and procedures of this document.

5.02 Individual employees will:

a. Actively participate in the Foushée S&HP.
b. Attend required safety training programs.
c. Report hazards or unsafe equipment or conditions to crew leader, supervisor or Supreintendent or Safety Manager for correction.
d. Be responsible for their personal safety and safety of coworkers.
e. Immediately report any workplace related incident, accident, injury or illness or property damage to their supervisor.

Policy

All employees will adhere to the following rules while performing work on a Foushée jobsite.

1.0 Requirements

1.01 Foushée and Associates, Company, Inc. expects all employees and subcontractors to comply with the following safety rules and regulations. Failure to comply with the following rules, policies and procedures may lead to disciplinary action, including termination.

1.02 Employees are expected to report all potential hazards, safety violations, and near misses. If you do not understand the application of a rule, please ask your supervisor. Safety is everyone's responsibility. You must be alert, use good judgment and always perform your work in a safe manner.

1.03 Report all on the job injuries and incidents immediately to a Foushée Superintendent or Foreman. An incident report must be submitted within 24-hours.

1.04 Report unsafe conditions and hazards to your Superintendent or Foreman.

1.05 Report hazardous or unsafe conditions that may cause injury, property damage, or interferes with services promptly to your immediate supervisor, Superintendent or Foreman. The employee shall appropriately and safely guard the potential hazard until corrective action is taken.

1.06 A CPR/first aid certified supervisor shall always be available.

1.07 All new personnel to the project must attend Foushée's Employee Safety Orientation before starting work on the jobsite.

1.08 Properly care for and be responsible for your personal protective equipment. The following minimum PPE is required on Foushée projects:

a. ANSI approved Hard Hats shall be worn while on the project, during all phases of construction, and when any overhead work is performed.

b. ANSI Z87.1 eye protection is required to be worn by all employees on the project.

c. Face protection in the form of face shields/safety glasses or safety goggles are required for activities creating flying debris hazards such as grinding, chipping, burning and welding.

d. Fall protection, gloves, respirators, ear protection are required per task specific requirements.

e. High visibility garments are required during daylight hours when workers are exposed to moving vehicles. Class 2 high visibility is required during hours of darkness and when working near moving vehicles and traffic.

f. Substantial footwear, made of leather or equally firm material with non-slip soles, and ankle support.

1.09 Wear appropriate work clothes, short-sleeved shirt, long pants, and no loose clothing and jewelry.

1.010 Do not leave materials in aisles, walkways, stairways, roads or other points of egress.

1.011 Always store materials in a safe manner. Tie down or support piles if necessary, to prevent falling, rolling, or shifting.

1.012 Shavings, dust scraps, oil or grease should not be allowed to accumulate. Good housekeeping is a part of the job.

1.013 Trash piles must be removed as soon as possible. Trash is a safety and fire hazard.

1.014 Remove or bend over the nails in lumber that has been used or removed from a structure.

1.015 Immediately remove all loose materials from stairs, walkways, ramps, platforms, etc.

1.016 Avoid shortcuts – use ramps, stairs, walkways, ladders, etc.

1.017 Good housekeeping practice is required daily. Keep the project clean. Do not block aisles, pathways, exits, stairways, and keep emergency equipment clear of obstacles. Always keep roads or points of egress open.

1.018 Materials will not be thrown off upper floors (higher than 20' to the top of dumpster) or the roof unless proper safety precautions are taken to ensure workers are not walking below or through a landing zone.

1.019 Standard guardrails must be erected around all floor openings, perimeters, and excavations must be barricaded. Contact your supervisor for the correct specifications.

1.020 Get help with heavy or bulky materials to avoid injury to yourself or damage to material.

1.021 Keep all tools in safe working condition. Never use defective tools or equipment.

1.022 Keep all tools away from the edges of scaffolding, platforms, shaft openings, etc.

1.023 Do not use tools with split, broken, or loose handles, or burred or mushroomed heads. Keep cutting tools sharp and carry all tools in a container.

1.024 Know the correct use of hand and power tools. Use the right tool for the job and for their designed purpose.

1.025 Proper guards or shields must be installed on all power tools before use. Do not operate any machine or tool without guards and safety devices in place and in proper operating condition. No "homemade" handles or extensions (cheaters) are allowed.

1.026 Use G.F.C.I. (Ground Fault Circuit Interruption) Program for electrical protection. Subcontractors are required to comply with this program.

1.027 All electrical power tools and extension cords shall be properly insulated and inspected before use. Damaged tools and cords shall be red tagged and taken out of service.

1.028 All electrical power tools (unless double insulated), extension cords, and equipment must be properly grounded.

1.029 Electrical hot work must be pre-approved by the Project Superintendent. Electrical hot work is defined as: “any work by hand, tool or implement that would infringe on the plain of the panel or box”.

1.030 Red tag all damaged or faulty equipment. Do not remove any tags without proper authorization.

1.031 Tools, equipment, and materials need to be kept away from edges of scaffolding, platforms, excavations, guardrails and other heights.

1.032 Be aware of exhaust flow (carbon monoxide) when operating any equipment with small or large combustion engines.

1.033 It is mandatory that seat belts are always worn when operating heavy equipment, vehicles or any other moving device.

1.034 Riding material hoists or other moving equipment is prohibited except on seats provided.

1.035 Never ride on or allow anyone to ride on equipment that is moving or operating.

1.036 All equipment must have back-up alarms.

1.037 Personnel, equipment, and materials must stay at least ten feet away from power lines.

1.038 Be alert and keep out from under overhead loads.

1.039 Only trained and authorized operators are allowed to operate machinery. Do not operate machinery if you are not authorized.

1.040 Know the location and use of fire extinguishing equipment and the procedure for sounding a fire alarm.

1.041 Flammable liquids shall be used only in small amounts at the job location and in approved safety cans.

1.042 Flammable liquids must be stored and transported in authorized containers only; no plastic containers are allowed for the storage or transportation of gasoline, diesel, kerosene, or other fuel oils on Foushée projects. Engines must be shut off when refueling and no smoking is allowed near flammable liquids.

1.043 Compressed gas cylinders must be secured in an upright position.

1.044 When burning or welding, a fire extinguisher must always be within 10 feet. A Hot Work Permit, signed by project supervision, is required for all heat, flame, or spark producing work and must be signed and submitted following the completion of all hot work and fire watches.

1.045 Inspect ladders before use for physical defects. Place ladders on a substantial base and do not use ladders with broken, split or missing rungs or rails. Extension ladders must be secured from displacement and extend at least three feet above the landing platform with a physical offset at approach. Stepladders must have all four feet level and lock spreaders in place. Do not work from top two steps.

1.046 Spotters shall be implemented when necessary to ensure that moving equipment does not cause personal injury, or property damage.

1.047 The use of, or being under the influence of intoxicating beverages, or illegal drugs while on the job is prohibited. Each employee must report the use of medically authorized drugs or other substances, which can impair job performance to his/her immediate supervisor and provide proper written medical authorization to work, from a physician.

1.048 All posted safety rules must be obeyed and must not be removed.

1.049 All workers shall always comply with all federal, state and local safety laws, employer regulations and policies.

1.050 Acts of horseplay will not be tolerated.

1.051 A Fall Protection Work Plan hall be written and enacted for all activities with exposures greater than 10 feet in elevation. Workers exposed to those falls shall be trained on the requirements of the fall protection work plan.

Requirements

1.0 Employee training is provided to improve the skill, awareness, and competency of occupational safety and health requirements for construction.

1.01 Company Safety Rules: Employees are provided a copy of the company safety rules to read, understand, and ask questions for clarification. The issuance of these rules should be kept on file. Special attention should be given to the training of new, unskilled employees.

1.02 Safety Orientation: A description of Foushée's safety and health program will include an on-the-job orientation that informs employees on site specific requirements and what they need to know to perform their work safely. The following project requirements covered include: how and when to report injuries and accidents and the location first aid supplies; how to report unsafe conditions and practices; use and care of PPE; what to do in an emergency and how to exit; awareness of hazardous materials; and when safety meetings are conducted.

1.03 Construction Safety Meetings: Work crew safety meetings (Tool-Box Talks) are held with all jobsite workers at the beginning of each project and at least weekly thereafter to assist in the detection and elimination of unsafe conditions and work procedures. Attendance and subject matter will be documented and maintained on file for at least one year and duration of project. Copies of the minutes are available.

1.04 Topics for Construction Safety Meetings may include the following:

a. In-house safety inspections.
b. Review incident reports, lessons learned and preventative measures.
c. Personal protective equipment.
d. Housekeeping.
e. Tool inspection procedures.
f. Emergency procedures.
g. Discipline specific safety (i.e., electrical, ladder, scaffold, fall protection, equipment, trenching, confined space, lock out, traffic/pedestrian).
h. Fire prevention/ fire extinguishers/ Hot work
i. Heat Stress
j. Review job procedures and recommend improvements (Job Safety Analysis Form is available in the Appendix).

1.05 Documentation: The sample Safety Meeting form is located in the Appendix for documenting activities of crew/leader meetings.

1.06 Changed Conditions: Review new or added potential hazards with new phases of work activity.

1.07 Safety Equipment: Instruct employees on how to use and care for personal protective equipment.

1.08 Safety Follow-Up: The Project Superintendent, Safety Director and Field Safety Manager will advise employees on unsafe practices and follow-up on employee's actions.

1.09 Individual/Group Instruction: Group safety education will be conducted at safety tool box talks and to individuals where the employee has committed an unsafe act or is provided instruction on the use of a new tool.

1.010 Fall protection is required for all walking/working surfaces when exposed to falls of 4 feet or greater.

1.011 All excavations shall be clearly marked and barricaded.

1.012 Trenches over 4 feet in depth shall be shored, shielded, sloped or benched.

1.013 All excavations and trenches shall have ingress and egress points within 25 feet of travel, such as a ladder inside a protected area within 25 ft. of travel.

1.014 Danger tape is to be used whenever access is prohibited due to life threatening or serious injury exposure. Caution tape is to be used when a temporary barricade is needed for exposures that are not life threatening or will not cause serious injury.

1.015 Only qualified and experienced riggers and signal persons shall be used for hoisting.

1.016 The use of slings to rig pallets for overhead hoisting is not allowed.

1.017 Post-accident drug/alcohol testing is required for all injuries that require off site medical treatment, and major property damage of $2,500 or when a person's actions cause someone else to be injured and off-site medical treatment is required.

1.018 Halogen task lights (small, mobile type) are not allowed to be used.

1.019 Signs need to be posted when overhead work is in progress.

1.020 Fire extinguishers must have a documented monthly inspection and annual recertification.

1.021 Traffic control will be implemented as required. All flaggers shall be certified and have a valid flagger card on their person.

1.022 Under no circumstances shall any employee or any subcontractor enter a confined space alone or without proper permits or precautions.

Purpose

The purpose is to effectively communicate safety and health concerns to our personnel, subcontractors, vendors, and clients and to ensure operations are conducted in a safe manner for everyone involved. The communication of policies, procedures and hazards is essential for everyone's welfare.

Policy

This policy applies to all construction communications conducted on Foushée jobsites.

Procedure

1.0 Internal Communication

1.01 Foushée will communicate the following to employees:

1.02 Foushée's Accident Prevention Program (APP), Safety Policy and SHP will be communicated through awareness training at the Annual Company Meeting and Quarterly Superintendent Meetings.

1.03 Any changes to the APP will be communicated to employees as needed through the safety department.

1.04 Foushée's Safety Leadership team meets quarterly to set goals, and review policies and programs.

1.05 Meetings are conducted with the Operations Managers, CFO, President, Field Safety Manager and Safety Director.

1.06 All projects will also establish a Project Safety Leadership Team, inclusive of all levels of project management and craft for both Foushée and subcontractors.

a. The team will review all incidents.
b. Discuss job environmental, health, and safety performance.
c. Conduct a site inspection - all potential hazards/risk identified must be addressed at the time of the inspection and document closure if possible.
d. Assess committee's site inspection to evaluate potential trends and repetitive items.
e. Hold special meetings when warranted and after all lost-time incidents.

2.0 External Communication

2.01 Foushée will communicate the following information externally:

a. Our concerns about safety, health and environmental issues and desires to conduct business operations in a safe and manner.
b. Relevant sections of the APP will be communicated to subcontractors during the award process, orientation training, and weekly safety tool box meetings.

2.02 Foushée will communicate our APP with suppliers and owners as applicable and warranted to on safety and health items.

1.0 Purpose

1.01 To insure fair and uniform application of disciplinary procedures involving employees of Foushée and Associates, Company, Inc. and their subcontractors when and where applicable.

2.0 Policy

2.01 This documented progressive discipline policy is designed to give employees of Foushée the maximum opportunity to succeed and continue their employment with the company. The company recognizes that most employees want to succeed and do the best job possible. The company also recognizes that employees come to work with a variety of problems, attitudes and abilities. Our employees are our most valuable assets and we must do everything possible to ensure their continued personal safety, quality of craftsmanship and job efficiency. If an employee is to succeed and continue their employment with Foushée they need to be informed when their performance is good and they need to know when their performance or behavior is not acceptable and what they are expected to do to correct the situation.

3.0 Responsibilities

3.01 Crew Leader: The crew leader has the greatest one-on-one contact with the individual employee. If an employee is not performing to expectation and the employee has failed to respond to reminders, instructions, and directions, the crew leader is to contact the supervisor or project manager for further action.

3.02 Supervisor/Project Manager: At the request of the crew leader or on his or her own initiative the supervisor or project manager will administer a verbal warning to the employee according to the guidelines established for verbal warnings.

3.03 Company Officer: The Company Officer will monitor, advise and participate in all written warning procedures.

4.0 Reminders

4.01 Reminders are unofficial, immediate corrections administered on an as needed basis. In most cases they will only occur once or twice for any one problem or person. They are given and taken in the spirit of cooperation and concern for the employee, the product and the company.

4.02 Verbal Warnings: A verbal warning should be administered when reminders do not achieve the desired effect.

a. The Crew Leader contacts the Supervisor or Project Manager.
b. Employee is taken aside in privacy.
c. The problem is clearly stated.
d. Employee is given the opportunity to respond and/or explain his or her version.
e. Corrective instructions are clearly stated.
f. A timeline is established for re-evaluation.
g. Employee is informed that the next step will be a written warning.

h. Document time, date, problem, solution and time frame and turn it in to the Project Manager.

5.0 Written Warnings

5.01 The written warning should occur only when reminders and a verbal warning do not achieve the desired effect. A written warning may also occur without the two preliminary steps if the problem or offense is severe enough that termination or suspension is possible, and immediate termination is not warranted. The Project Manager, and/or a Company Officer, and Safety Manager must be present at all written warnings.

5.02 The Supervisor should meet with the Project Manager, Company Officer, and Safety Manager and review the situation and the progressive action taken to date, schedule a time and place for a meeting with the employee, Supervisor, Project Manager, or a Company Officer and Safety Manager. The employee will receive a copy of the warning that is placed in their file. Termination is reserved for when an employee chooses not to follow the agreed upon corrective action or for certain egregious acts, such as willful disregard to safety requirements.

a. Review the progressive steps taken to date.
b. Clearly state the problem.
c. Give the employee the opportunity to state his or her own views, interpretation and explanation.
d. Clearly and specifically state verbally and in writing what the corrective action is to be.
e. Establish and communicate the timeline for re-evaluation.
f. Advise the employee of our Employee Assistance Program.
g. All parties present sign the written warning.
h. The employee receives a copy, and a copy is placed in the employee's personnel file for one year.
i. Clearly advise the employee of the seriousness of the situation and that the next step for this problem or offense is termination.

5.01 Any employee who accumulates three (3) written warnings in a twelve (12) month period, for three (3) different problems will be terminated with the third warning. An employee who receives a second written warning in a twelve (12) month period for the same type or similar violation will be terminated with that second warning. Employees may be suspended for a period of up to 3-days as determined by management for actions that warrant written warnings. Such actions include the list of “causes for immediate termination”. Foushée has a zero tolerance for violation of fall protection requirements.

5.02 Violators will be subject to an immediate 3-day suspension with retraining required prior to returning to work.

6.0 Causes for Immediate Termination

6.01 The management of Foushée reserves the right to terminate employment immediately for the following offenses:

a. Removing company or customer property without authorization.
b. Timecard fraud.
c. Sleeping on the job.
d. Willful disregard for safety policies and procedures.
e. Willful disregard for equal employment opportunity policy.
f. Fighting or striking another employee or customer.

g. Defacing company property.
h. Defacing customer property.
i. Falsifying personnel documents and questionnaires.
j. Filing fraudulent Industrial Insurance claims.
k. Reporting to work under the influence of a chemical substance and refusing to participate in the company's Employee Assistance Program.
l. Selling or distributing a controlled substance on or near company or customer property.
m. Reckless endangerment to self or another employee or customer.
n. Not portraying a polite and professional attitude to the public around the project or the owner.

Foushée

Eric Jones, President / CEO

EHS Forms and Documents

* ***Written Warning Notice***

Purpose

The project supervision will conduct an incident/ accident investigation of all incidents that occur on a Foushée jobsite. The purpose is to gather the facts, identify root causes, develop corrective actions and communicate proactive lessons learned to prevent future events.

Policy

The timely reporting of incidents is required on all Foushée jobsites.

1.0 Accident Reporting

1.01 All accidents, incidents, property damage no matter how minor, shall be reported to the Foushée Superintendent. Prompt first aid or medical attention shall be rendered immediately to the injured person.

1.02 In the event of an Emergency call 911, then notify Foushée Superintendent.

1.03 Tend to the injured.

1.04 Guide emergency vehicles.

1.05 In the event of a serious accident or event, the area and equipment involved shall be secured until fully investigated and the Superintendent/Safety Director approves resumption of work.

1.06 Notify company officials (Safety Department, Operations).

1.07 Gather all jobsite workers (if necessary).

1.08 Begin investigation process, photos, witness statements.

1.09 A company official will notify DOSH (fatality, catastrophe or hospitalization) within 8 hours.

1.010 Only a company official may speak to the press.

2.0 Conducting an Incident Investigation

2.01 All accidents (including near misses and first aid) shall be investigated by field supervision.

2.02 Project Superintendent is responsible for ensuring corrective actions and proper follow-up of accident investigations and near misses.

2.03 The purpose of an investigation is to find facts, the cause of an incident, and prevent future occurrences, not to attach blame. An unbiased approach is necessary to obtain objective findings.

2.04 Visit the incident scene as soon as possible – while facts are fresh and before witnesses forget important details.

2.05 Document witness statements as soon as possible. If possible, interview the injured worker at the scene of the incident and "walk" them through a re-enactment. Be careful not to repeat the act that caused the injury.

2.06 All interviews should be conducted as privately as possible. Interview witnesses one at a time. Talk with anyone who has knowledge of the incident, even if they did not actually witness the mishap.

2.07 Take signed statements in cases where facts are unclear or there is an element of controversy.

2.08 Graphically document details of the incident: area, tools, and equipment. Use sketches, diagrams, photos, video, and take measurements when appropriate.

2.09 Focus on causes and hazards. Develop an analysis of what happened, how it happened, and how it could have been prevented. Determine what caused the incident itself (unsafe equipment/condition, unsafe action, etc.), not only the injury.

2.010 How will you prevent such incidents in the future? Every investigation should include an action plan.

2.011 If a third party or defective product contributed to the incident, save any evidence. It could be critical to the recovery of the claim costs.

References: see Appendix

- *Supervisor's Accident/ Incident Investigation Report Form*
- *Use Near Miss Report form for documenting near misses*

3.0 Conducting Lessons Learned

3.01 It is important to learn from accidents and near misses to prevent similar reoccurrences. An effective Lessons Learned documents a description of the incident, the root cause, contributing factors, and corrective actions.

4.0 In the Event of an Emergency

4.01 Each project/job location will have an emergency action plan in place. The plan highlights procedures for injury or evacuation events.

4.02 Emergency response and evacuation procedures should be coordinated with the client or tenant. The client or tenant may provide information useful in emergency planning or have a plan that we must follow.

4.03 This plan shall be made available to all employees, including subcontractor employees, and be covered during the new hire orientation for new employees to the jobsite.

4.04 Each plan will include the location of properly sized first aid kit(s) and eyewash. Eyewash equipment will be available at each jobsite.

4.05 The plan must include an evaluation of the employees working on-site. Each project must have First aid and CPR supervision validated by certification. All field supervisors must hold a current First Aid/CPR certification.

5.0 General Employee Injury

5.01 If a person is injured and unconscious, not breathing, or has fallen from a height greater than their own height, IMMEDIATELY call 911.

5.02 Call First aid/CPR certified individuals to the scene as soon as possible by following the project Emergency Action Plan.

5.03 If the possibility of spinal cord damage is apparent, DO NOT move the victim. Stabilize them until authorities arrive. Try to stop all bleeding by applying pressure. Be sure to take personal safety precautions, i.e. gloves and a CPR mask if available.

6.0 General Evacuation

6.01 If you discover a fire: Tell another person immediately. Call 9-1-1 or have them call 911 and notify company supervision and/or security or property management.

6.02 Once an available evacuation route is located, employees may begin evacuating their area to the designated assembly location.

6.03 Evacuation should proceed as quickly as possible. Proceed to the designated assembly point outside the building and assist others around you in locating the designated assembly point.

6.04 Supervisors must account for each employee in their work group as quickly as possible.

6.05 Employees must not re-enter the building once evacuation is complete.

7.0 In Case of Earthquake

7.01 There will be no warning. Drop under a desk or table, cover head. Stay away from windows, heavy cabinets, bookcases or glass dividers as these items may break or fall during the earthquake.

7.02 When the shaking stops employees should check their surrounding area for damage that may limit evacuation routes. Once an available evacuation route is located, employees may then evacuate their area to the designated assembly location.

7.03 Evacuation should proceed as quickly as possible due to potential aftershocks.

7.04 Supervisors must account for each subcontractor employee in their work group as quickly as possible.

7.05 First aid certified employees should check for injuries and help evacuate injured employees. Do not attempt to move seriously injured persons unless they are in immediate danger of further injury. If a gas odor is in the building, tell building security and/or property management immediately and notify gas utility. Shut off the gas at the main.

7.06 Employees must not re-enter the building once evacuation is complete.

7.07 Do not approach or touch downed power lines or objects touched by downed power lines.

7.08 Do not use the phone except for emergency use.

7.09 Use a radio and listen for public safety instructions.

7.010 Once outside, stand away from buildings, trees, telephone and electric lines.

8.0 If an Injury Occurs During an Emergency

8.01 If the injured person is unconscious, not breathing, or has fallen from a height greater than their own height, IMMEDIATELY call 911.

8.02 Get first aid/CPR certified individuals to the scene as soon as possible by following the project Emergency Action Plan.

8.03 If the possibility of spinal cord damage is apparent, DO NOT move the victim. Stabilize them until authorities arrive. Try to stop all bleeding by applying pressure. Be sure to take personal safety precautions, i.e. gloves and a CPR mask if available.

9.0 Other Emergencies

9.01 Bomb threats are usually received by telephone, but may also be received by note, letter or e-mail. All bomb threats should be taken seriously and handled as though an explosive were in the building.

9.02 If an employee receives a bomb threat, they should get as much information from the caller as possible. Take good notes when talking to the person on the telephone, keep the caller on the line, be aware of background noise, special voice characteristics, music, machinery, etc. They should have a coworker call 911 and notify their supervisor immediately. If an employee receives notice of a bomb threat, do not touch any suspicious packages, clear the area around any suspicious packages, and notify police of the location of any suspicious packages. Notify building security and/or property management, evacuate the building and proceed to the evacuation meeting area.

9.03 If there has been a chemical spill, employees should contact their supervisor.

9.04 Do not attempt to clean up a chemical spill with any other chemicals until the spilled chemical is identified and proper cleanup procedures are identified.

9.05 If the employee is unsure of the chemical's properties, if it is believed that someone has been exposed to a hazardous level of chemical exposure, or if the chemical is spilled in massive quantities, notify building security and/or property management and evacuate the area and immediately call 911.

9.06 Try to have as much information ready as possible, including size of spill, date and time, type of description of chemical(s), and exact location. The product SDS sheet will contain 1-800 numbers to contact for chemical-specific assistance.

9.07 In the event of workplace violence, an employee should notify their supervisor. Supervisors should contact the police immediately. It is imperative that our employees try to avoid confrontational situations and avoid acting as a mediator in any situation where violence is present. There will be zero tolerance of acts or threats of violence in the workplace.

10.0 Emergency Procedures

10.01 Call 911.

10.02 Tend to the injured.

10.03 Provide guidance for emergency vehicles.

10.04 Secure area.

10.05 Notify company officials (Safety, Operations).

10.06 Gather all jobsite workers. (If necessary).

10.07 Begin investigation. (Take pictures, locate witnesses, video location/area).

10.08 A company official will notify OSHA/DOSH (only in the event of a fatality/probable fatality, catastrophe or a hospitalized employee) within 8 hours.

10.09 Only the company Chief Executive Officer can authorize who may speak to the press and contact family members.

EHS Forms and Documents

* ***Event, Near Miss Report***
* ***Fillable PSF Automobile Incident Report***
* ***Supervisors Accident Incident Report***

Purpose

Use this basic form to identify hazards, controls, and PPE at the job task level. This form may be modified to meet any additional needs of your workplace. Job Hazard Analysis (JHA) hazard information can be used to develop separate safe work procedures for employee use.

Procedure

1.0 Analyzing hazards

1.01 Job: Select a job (or main activity) to observe and analyze.

1.02 Tasks or Steps: List tasks or steps that are part of the job you selected in the “Task” column.

1.03 Example: “Operating a table saw” would be the job while “Installing a blade” and “Ripping” would be separate tasks.

1.04 Hazards: Note any condition in the workplace that can potentially cause occupational injury, death, or disease. Assume that no Personal Protective Equipment (PPE) is being worn when identifying hazards.

1.05 Examples of hazards include: working at heights and falls, pinch points, overhead loads or objects, heat, chemicals, lifting, material handling, slippery surfaces, exposed moving machinery parts, fire, explosion, noise, electricity, toxic emissions, corrosive chemicals, low oxygen, repetitive tasks, heavy lifting.

1.06 Examples of how injuries can occur: work at height can result in falls that can result in serious injury; noise exposure can cause permanent and severe ringing in the ears and hearing loss; exposure to corrosive chemicals can cause permanent skin damage and blindness; and working in low oxygen areas can lead to sudden suffocation, unconsciousness.

1.07 Controls: Note how you will eliminate or minimize the hazard. This does not include PPE.

1.08 Examples of controls include: Using a safer tool or equipment or chemical, finding an alternative, adding safeguards to machinery, using safer work practices, using local exhaust ventilation for toxic emissions, and enclosing noisy equipment or moving workers away from such equipment to reduce exposure levels.

1.09 Personal Protective Equipment (PPE): Detail what type of PPE is needed for each hazard that cannot be eliminated or minimized using controls.

*Refer to Motor Vehicle Safety Policy in the Onboarding Fleet Management Policy.

Policy

It is the policy of Foushée and Associates, Co., Inc. to provide and maintain a safe working environment to protect our employees and the citizens of the communities where we conduct business from injury and property loss. The company considers the use of automobiles part of the working environment. The company is committed to promoting a heightened level of safety awareness and responsible driving behavior in its employees. Our efforts and the commitment of employees will prevent vehicle accidents and reduce personal injury and property loss claims. This program requires the full cooperation of each employee to operate their vehicle safely, to adhere to the responsibilities outlined in the Motor Vehicle Safety Program, and to keep safe the equipment assigned to them. Elements of this program include:

a. Assigning responsibilities at all levels of employment.
b. Vehicle use and insurance requirements.
c. Employee driver's license checks and identification of high-risk drivers.
d. Accident reporting and investigation.
e. Vehicle maintenance.
f. Safety regulations, including cellular phones and equipment.

2.0 Responsibility

2.01 Management is responsible for successful implementation and on-going execution of this program. Supervisors and employees are responsible for meeting and maintaining the standards set forth in this program.

3.0 Scope

3.01 This policy applies to any employee who:

a. operates a vehicle on company business and/or
b. operates a company vehicle on personal business and/or
c. operates cellular phones and/or
d. is assigned company owned equipment.

4.0 Vehicle Safety

a. All loads protruding beyond the end of pickups and flatbed trucks more than twelve (12) inches shall be flagged.
b. All loads shall be secured from movement (shifting) while trucks are moving.
c. Be alert to changes in road conditions and changes in traffic patterns (example - intersections).
d. Observe all speed limit signs on the project.
e. Do not back up vehicles unless you have clear vision to the rear, or you are guided by an observer at the rear of the vehicle.
f. Personnel will not be allowed to jump from a moving vehicle. Vehicle must come to a complete stop.
g. All defects, which affect the safe operation of trucks, etc., shall be repaired or replaced immediately.

h. Only three people are allowed in the front of a cab. Personnel are not allowed to ride on or in utility vehicle cargo area (back of pickups).
i. All materials shall be placed in the back of a pickup (NOT THROWN).
j. Do not move any loads that are not secured well from movement.
k. Do not allow personnel to sit on loads, such as crates, boxes and barrels.
l. All personnel while riding or driving on company business shall wear seat belts.
m. Personnel shall refrain from the use of, or being under the influence of, alcohol or any intoxicating liquor, narcotic, hallucinogen, stimulant, sedative, or other non-prescriptive narcotic or drug, or any prescription drug which may impair an employee's ability to safely perform his or her job duties, or which has been taken other than according to the prescribing physician's instructions at any time prior to or during work hours or after hours on property.

Purpose

It is Foushée and Associates Company, Inc. commitment to provide a safe and healthy workplace for all employees. Construction is recognized as an inherently dangerous industry, regulated by Local, State and Federal regulations and statutes. As established by law, it is the employer's duty to provide and maintain a safe and accident-free workplace.

Policy

This policy enhances our team efforts in carrying out this responsibility and to maintain a safe work force by ensuring an environment free from the influences of alcohol and illegal drugs. This program will treat each job applicant and employee fairly and in a non-discriminatory manner.

Definitions:

"Alcohol" means ethyl alcohol, hydrated oxide of ethyl or spirits of wine from whatever source or by whatever process produced.

"Drug" means amphetamines, cannabinoids (marijuana/hashish), cocaine, phencyclidine (PCP), methadone, methaqualone, opiates, barbiturates, benzodiazepines, propoxyphene or a metabolite of any such substance.

"Prescription Drug" means a drug or medication lawfully prescribed by a physician or other health care provider licensed to prescribe medication for an individual and taken in accordance with the prescribed instructions.

"Accident" means a sudden and tangible happening that results in an injury requiring immediate off-site medical attention and/or major property damage that result in a report to our general liability insurance carrier.

"Medical Review Officer (MRO)" means a licensed physician trained in the field of drug testing who provides medical assessment of positive test results, requests reanalysis if necessary and decides whether drug misuse has occurred.

"Employee Assistance Program" means a program designed to assist in the identification and resolution of job performance problems associated with employees impaired by personal concerns.

"Agreement For Continuation of Employment (Last-Chance Agreement)" means a notice to an employee, who is referred to the employee assistance program due to a positive alcohol test, verified positive drug test or for violating an alcohol or drug related Company rule, that states the terms and conditions of continued employment with which the employee must comply.

1.0 Drug-Free Workplace Program

1.01 In accordance with this policy, the use or being under the influence of alcohol during working hours is prohibited. The use, purchase, possession, or transfer of illegal drugs or having them in your system is also prohibited on Company or client premises, at any other location while conducting Company business or at Company sponsored events. This does not include prescription or nonprescription medications taken in accordance with a lawful prescription or standard dosage recommendations.

1.02 When approved by management, moderate use of alcohol may be allowed at Company sponsored social events outside normal working hours and away from construction work sites. Designated drivers and other means of transportation will be provided to ensure no person under the influence of alcohol leaves a Company sponsored event operating a motor vehicle.

1.03 This Plan voluntarily utilizes the Department of Health and Human Services (DHHS), Substance Abuse and Mental Health Services Administration (SAMHSA), and Federal guidelines relating to drug-free workplace programs, including the U.S. Department of Transportation (USDOT). This drug-free workplace program meets the requirements set forth in WAC 296-155-040. The use of intoxicants or debilitating drugs while on duty is prohibited. Employees under the influence of intoxicants or drugs must not be permitted in or around worksites.

1.04 An employee shall have the right to use the grievance/arbitration system to challenge any aspect of the drug-free workplace program.

1.05 Foushée reserves the right to require additional safeguards that serve the best interest of the employees and the program.

2.0 Substance Abuse Testing

2.01 Only qualified medical and laboratory personnel will conduct alcohol tests, urine specimen collections and laboratory analyses and they will be performed in accordance with the U.S. Department of Health and Human Services (DHHS) and the Department of Transportation regulations. This includes cutoff levels for alcohol and drug testing. The laboratory used will be certified by (DHHS) and/or the College of American Pathologists.

2.02 All alcohol tests will be conducted by utilizing the alcohol dehydrogenase method or a trained Breath Alcohol Technician (BAT) using an approved evidential breath-testing device (EBT). Each initial breath test indicating an alcohol concentration of 0.02 or above will undergo a second confirmation test. Each initial drug test indicating a positive result will undergo a second confirmation test using a gas chromatography/mass spectrometry (GC/MS) technique to ensure the validity of the initial screening result.

3.0 Pre-Employment

3.01 All job applicants will be tested for alcohol and drugs after extending a conditional offer of employment. Every effort will be made to test either before or on the first day. Any job applicant who has a positive alcohol test result, a verified positive drug test or refuses to submit to a test will not be hired or will be terminated upon receipt of the test result. The individual will not be given any further consideration for hiring until thirty (30) days has elapsed.

3.02 Craft employees are considered new employees or job applicants and are required to pass a pre-employment test each time they are dispatched unless (1) they have successfully passed a drug test on a Company project within the prior six month period or (2) they are union craft employees and a "clean card" system is in place that is recognized between the Company and union. Foushée and the AGC recognizes the Washington Construction Industry Substance Abuse Program (WCISAP) for its participating carpenters and laborers.

3.03 Employees, who are continuously employed and move from job site to job site will not be required to take a pre-employment test after the initial test.

3.04 Subcontractor employees may also be required to pass alcohol and drug tests on a project-by-project basis.

4.0 Post-Accident

4.01 Involvement in an on-the-job accident or incident may require testing where an Employee is judged to have caused or contributed to an accident requiring off site medical attention or property damage.

4.02 An exception may be made in those situations when a designated employer representative, reasonably believes the accident was due to the inexperience of the employee, due to a defective/unsafe product or working conditions and/or other circumstances beyond the control of the employee.

4.03 The Employee may be transported to the hospital or laboratory by the Employer. After the test is completed, the Employee may be transported back to his/her residence, or the job site.

4.04 The failure to immediately notify a Company supervisor that an accident has occurred may result in disciplinary action.

4.05 If the test results are negative, the Employee will immediately be reinstated in his/her previous position, with full back pay based on a project's regular schedule and no further action will be taken.

4.06 Should the test results be positive, the Employer may terminate the Employee without pay except for actual time worked on the day that the test was conducted. Employees have the right to obtain test results.

4.07 Employees required to take a "Post Accident" test may be allowed to return to duty after the completion of the test unless the supervisor has reason to believe the employee cannot safely perform his/her job. If the employee is not allowed to return to duty, he/she will be offered transportation to his/her home or job site.

5.0 Reasonable Suspicion

5.01 Means a supervisor and at least one other individual observes the employee and believes his/her actions, appearance, conduct or work performance indicates the possible use of alcohol or drugs in violation of this policy and confirmed by the observation of a supervisor or designated employer representative.

5.02 Is the type of behavior which is a recognized and accepted symptom of intoxication or impairment caused by controlled substances or alcohol or addiction to or dependence upon said controlled substances; and

5.03 Is not reasonably explained as resulting from causes other than the use of controlled substances (such as, but not by way of limitation, fatigue, lack of sleep, side effects of prescriptions or over-the-counter medications, reactions to noxious fumes or smoke, etc.).

5.04 If the test results are negative, the Employee will immediately be reinstated in his/her previous position, with full back pay based on a project's regular schedule and no further action will be taken.

5.05 Should the test results be positive, the Employer may terminate the Employee without pay except for actual time worked on the day that the test was conducted. Employees have the right to obtain test results.

5.06 Employees required to take "Reasonable Suspicion" drug tests will not be allowed to return to duty until the results of their tests are known. They will be offered transportation to their home or job site and will be given specific instructions to follow until the test results are received. If the test results are negative, the employee will immediately be reinstated to his/her previous position, with full back pay based on the project's regular work schedule and no further action will be taken.

6.0 Random

6.01 All employees will be randomly selected for unannounced alcohol and drug testing by a Third-Party Administrator (TPA). The selection will be using a computer number generating program. All employees in the random pool have an equal chance of being selected each time a selection is made.

6.02 The selection process will be carried out by a contract TPA and shall not exceed an annualized rate of 50% of the employees in the pool.

6.03 Employees required to take a "Random" test through the random selection process will resume their duty status after completion of the alcohol test and submitting their urine specimen for drug testing.

7.0 Follow-up

7.01 Conducted when an employee has a positive alcohol or drug test result or an alcohol or drug related incident in violation of this policy. The employee will be tested in conjunction with recommended rehabilitation program or if no rehabilitation program is required, in accordance with the Agreement for Continuation of Employment (Last-Chance Agreement).

7.02 If an employee voluntarily enters an employee assistance program, without a positive alcohol test, a verified positive drug test or a violation of any alcohol and drug related Company rule, follow-up testing is not required.

7.03 When follow-up testing is conducted, it shall be unannounced and will be at least four times a year for a two-year period after completion of the rehabilitation program or two years from the date of the Agreement for Continuation of Employment (Last-Chance Agreement).

7.04 A positive follow-up test result will result in termination of employment.

8.0 Refusal

8.01 Any employee refusing to take an alcohol or drug test will be terminated. An Employee under the collective bargaining agreement WCISAP that refuses to participate in testing as outlined in the Plan shall be treated as a positive test. Any one of the following actions by an employee will be considered a refusal to test:

8.02 Employee refuses to sign the Clinic Consent Form or fails to cooperate with the testing process in a way that prevents the completion of the test.

8.03 Employee fails to provide an adequate amount of breath for alcohol testing (if breath testing device used) unless a doctor determines the failure is probably due to a medical condition.

8.04 Employee fails to provide a urine specimen.

8.05 All time the employees spend taking alcohol and drug tests, including travel time to and from the testing/collection site for reasonable suspicion, post-accident, random and follow-up tests is on-duty-time. If a test is positive, the employee's pay will terminate upon being suspended from duty status, except for actual time worked on the day the test was conducted.

9.0 Positive Tests

9.01 When a drug test has been conducted, the Medical Review Officer (MRO) will further evaluate the test result before forwarding it to the Company Designated Employer Representative. The MRO will contact the applicant or employee by telephone as soon as possible after receiving the results from the laboratory and discuss the positive test result with him/her to determine if there is any legitimate reason for the positive result. If the MRO determines the positive test result is correct, the Company will provide the applicant or employee with a written notification of the test result within five working days after receiving the result from the MRO. The applicant or employee may explain the result to a Company official or contest the result within five working days after receiving the notice. If the Company's review accepts the verified positive test result, the applicant or employee will be notified of the consequences of the result and the options available if appropriate.

9.02 If the job applicant or employee contests the result, he/she may request the remaining part of his/her urine specimen be analyzed by another approved laboratory. Should the second test result be positive, the results of the first test remain in effect and the applicant or employee pays all costs associated with the test. If it is negative, the entire test is considered negative and the Company pays all test costs and lost wages should they occur.

9.03 Any urine specimens that are determined to be chemically altered shall be considered positive. If a urine specimen cannot be analyzed because of dilution, a retest will be conducted at the Company's expense. A second diluted specimen will be considered positive.

9.04 Employees testing positive the first time will not be terminated but will be suspended without pay and referred to the EAP for evaluation. They will not be eligible for return to duty for ninety (90) days. However, the Company, at its sole discretion, may return to duty an employee prior to the completion of the ninety (90) day period if the employee is satisfactorily participating in, or has completed an approved rehabilitation program and can perform his/her duties in a satisfactory manner.

9.05 Employees returning to duty status after violating this policy will be required to enter into an Agreement for Continuation of Employment (Last Chance Agreement). This agreement will state the terms and conditions of continued employment with which the employee must comply. Failure to follow all conditions of this agreement will result in disciplinary action up to an including termination.

11.0 Employee Assistance

11.01 Rehabilitation is the responsibility of each employee. However, should an employee require inpatient or outpatient treatment for alcohol or drug abuse, he/she is eligible to receive those benefits allowed by the company's medical insurance plan.

11.02 An employee's decision to seek help for an alcohol or controlled substance problem will not be used as a basis for disciplinary action. Nor will it jeopardize their continued employment if the individual immediately stops using alcohol and drugs in violation of this policy. However, participating in a rehabilitation program will not excuse any employee from complying with job work rules and performance standards.

11.03 A continuation of employment agreement requires compliance with all the EAP treatment and follow-up recommendations.

11.04 Contact Foushée's HR or Safety Department for additional information on EAP services.

12.0 Testing Procedures

12.01 When a reasonable suspicion test is required, a Company supervisor and the observing witness, if available, will prepare a Behavior Report Form. The supervisor and witness shall record their observations of the employee's behavior, which led to their decision to require a test. No judgmental comments will be included. If an accident occurs, an accident report will also be completed, indicating the employee(s) involvement in the accident.

12.02 The employee should be asked if he/she is taking any medication or is aware of any medical condition that may be affecting his/her work performance. Any information provided should be included on the Behavior Report Form. The reasonable suspicion observations will be documented at or near the time of the incident. Copies of the Behavior Report Form and any accident reports will be provided to the employee(s).

12.03 Each time an alcohol and/or drug test is conducted, a Clinic Consent Form will be completed, which identifies the tests to be taken and when signed by the employee, authorizes the release of the results. This form will be read to the employee prior to obtaining the employee's signature. No changes can be made to the Clinic Consent Form.

12.04 If an employee refuses to sign the Clinic Consent Form, after receiving a complete explanation of the consequences for failing to follow the order, they will be terminated for insubordination.

13.0 Supervisory Training And Employee Education

13.01 Each supervisor will receive a minimum of two hours of training that includes the relationship of job performance deficiencies to unresolved personal problems; signs and symptoms of alcohol and drug abuse; documentation and corroboration of observations; referring employees to the employee assistance program; procedures for alcohol and drug testing; supervisory responsibilities in executing an Agreement for Continuation of Employment (Last-Chance Agreement); and employee confidentiality.

13.02 Employees shall receive a minimum of one hour of training that will include the Company's policy and procedures on alcohol and drug abuse in the workplace; their effect on safety, health, work performance and the risk of addiction; access to the employee assistance program; and how to obtain alcohol and drug abuse treatment.

14.0 Confidentiality

14.01 Alcohol and drug testing information is considered confidential. Each employee will be required to sign a Clinic Consent Form authorizing the test results and any evaluations be released to the MRO, EAP and/or a Designated Employer Representative. All employee information relating to the alcohol and drug program will be maintained in a secure location with access restricted to only those individuals having a need to know.

14.02 The release of information to a third party will be pursuant to a written release signed voluntarily by the employee unless it is required by proper legal authority. It shall contain at a minimum the name of the person authorized to obtain the information; purpose of disclosure; information to be disclosed; duration of consent; and the signature of the person authorizing release of the information.

Effective Date - Notice To Employees

This program becomes effective on August 31st, 1996 and alcohol and drug testing will commence on October 31st, 1996. Compliance with this policy is a condition of employment.

15.0 Testing Thresholds

15.01 The following substances are tested for under this program:

Tests	Screening Cutoff	Confirmation Cutoff	Units
Alcohol (Breath)	0.02	0.02	GM Alc/210 1 of Breath
Amphetamines	500	250	ng/ml
MDMA Ecstasy	500	250	ng/ml
Cocaine Metab.	150	100	ng/ml
Marijuana Metab.	50	15	ng/ml
Opiates	2000	2000	ng/ml
6-Acetylmorhpine	10	10	ng/ml
PCP	25	25	ng/ml

Drug testing and the chain of custody shall be conducted in accordance with the procedures of the U.S. Department of Health and Human Services Mandatory Guidelines for Federal Workplace Drug Testing Programs and the Department of Transportation. The cutoff value shall change upon change by such federal agency for those substances addressed by federal guidelines, and upon approval by Trustees.

EHS Forms and Documents

* ***WCISAP Substance Abuse Program Test Authorization***

Purpose

All employees have the right to work in an environment free from physical violence, threats, and intimidation.

Foushee's position is that violence is a form of serious misconduct that undermines the integrity of the employment relationship. No employee should be subject to unsolicited and physical violence, threats, or intimidation. Such behavior may result in disciplinary action up to and including dismissal.

Policy

Foushée has a strong commitment to its employees to provide a safe, healthy, and secure work environment. Foushée also expects its employees to maintain a high level of productivity and efficiency. The presence of weapons and the occurrence of violence in the work place during working hours or otherwise are inconsistent with these objectives. Foushée expects all employees to report on the work site without possessing weapons and to perform their duties in a safe and productive manner.

In the event of violence in the workplace, an employee should notify their supervisor. Supervisors should contact the police immediately. It is imperative that our employees try to avoid confrontational situations and avoid acting as a mediator in any situation where violence is present. There will be zero tolerance of acts or threats of violence in the workplace.

Definitions

"Crime of violence" Includes any degree of murder, voluntary manslaughter, rape, mayhem, robbery, burglary, aggravated assault, physical or verbal threats, and battery.

"Weapon" Includes an explosive device or explosive weapon, a device principally designed, made, or adapted for delivering or shooting an explosive weapon, a machine gun, a short barrel rifle or shotgun, a handgun, a firearm silencer, a switchblade knife or metal knuckles, or any other implement for infliction of bodily injury, serious bodily injury, or death which has no common lawful purpose.

"Workplace" Includes all property owned or occupied by Foushée, all job sites, job offices trailers, and company vehicles.

"Possession" Includes, but is not limited to, the presence of a weapon on the employee, in his / her motor vehicle, lunch box, locker, tool kit, bag, purse, desk, cabinets, office or other location under company control.

Prohibited Activities

- Use, possession, or sale of any weapon described above.
- Storing any weapon in a locker, desk, motor vehicle, lunch box, tool kit, bag, purse, or other repository on the work site or other company premises.
- Illegal possession, use or sale of a weapon off company property that adversely affects his /her own or other's safety at the place of employment, or indicates a propensity for the same.
- Refusing to submit to an inspection for the presence of a weapon that is requested by the company
- Refusing to sign a statement to comply with the company's policy on work place violence.
- Refusing to participate in an investigation pertaining to allegations or suspicion that violence has or is likely to occur, or an investigation pertaining to the carrying of a weapon by the emploee or co-employee.

- Verbal or physical threats, threatening gestures, or statements.
- Fighting

Foushée in its discretion, may, from time to time, modify this policy in order to meet special conditions that arise.

1.0 Reporting

1.01 Any employee who witnesses an incident of violence, threatening language, or conduct, must report the incident to their supervisor or the Director of Safety. Each report will be investigated with a written report of finding and action taken by management.

1.02 This policy also prohibits retaliation taken in any form against employees who report incidents of threats, physical violence, intimidation conduct, or weapons possession. Any employee brining a harassment complaint or assisting in the investigation of such a compliant will not be adversely affected in terms and conditions of employment, nor discriminated against or discharged because of the compliant.

2.0 Employee Assitance Program

2.01 Employees that are victims or witness to acts of violence that occurs in the place of employment may receive counseling upon request. Information on the company employee assistance program will be made available to all employees through the company training and education program.

3.0 Dicipline

3.01 Any employee who violates this policy by engaging in violent conduct or bringing a weapon into the work place is subject to discipline up to and including immediate termination. The company progressive discipline policy shall be referred to and applied in every case.

3.02 Any employee who violates this policy by bringing onto the work site a weapon that is or could be used in an act of violence, and whose employment is not terminated by the company, will be subject to searches without notice, for an indefinite period of time not to exceed one year from the date of the violation.

4.0 Miscellaneous

4.01 Foushée has the right to search any area(s) on company premises or any job site under the companies contractual control for weapons including, but not limited to, lockers, furniture, containers, drawers, equipment, or other facilities, lunch boxes, briefcases, personal bags, personal tool boxes, tool kits, parking lots, company vehicles, and personal vehicles parked on property under the control of the company.

4.02 No part of this policy or any procedure therein, is intended to affect the company's right to manage or control its workforce, or be construed as a guarantee or contract of employment or continued employment.

5.0 Non-Retaliation

5.01 This policy also prohibits retaliation against employees who report incidents of threats, physical violence, intimidation conduct, or weapons possession. Any employee bringing a

harassment complaint or assisting in the investigation of such a compliant, will not be adversely affected in terms and conditions of employment, nor discriminated against or discharged because of the compliant. Management will review each case and actions taken will be based on the merits of the investigation findings. In cases where an employee may be at risk to retaliation or physical violence committed by another person, local law enforcement will be contacted and the effected party will be informed of their right to protection orders through a court of law.

Exceptions

The company president must approve exceptions to this policy.

Foushée & Associates, Co., Inc.

Eric Jones, President / CEO

Foushée SH&P Job-Site Inspections

Periodic job-site safety inspections are conducted by Foushée Safety to assure the project is in compliance with DOSH standards and with Foushée safety policies.

Job-site inspections are conducted to identify and address potential unsafe conditions and acts and take appropriate action to correct such items.

Visual Inspections

Visual inspections are conducted daily and periodically by the supervisor/ foreman to inspect for and correct unsafe conditions and acts. Additionally, visual inspections are performed daily by each employee and when changing conditions affect the workplace.

Walk-Around Safety Inspections

The Foushée superintendent/ foreman/ safety representative will conduct weekly job site safety inspections. The walk-around safety inspection will be conducted at the beginning of each job, and at least weekly thereafter.

The inspections will be documented on the Foushée Job Safety Inspection form and the forms will be made available for inspection and maintained until the completion of the project. If any unsafe conditions or unsafe acts are found, they shall be corrected immediately. The corrections will be documented on the Foushée Job Safety Inspection form.

Any employee who continues to work in an unsafe manner may be subject for review and appropriate disciplinary action.

Machinery, tools or equipment that are found to be in an unsafe condition shall be immediately red tagged “Do not use” and taken out of service. These items shall be repaired or discarded.

Housekeeping

1. Employees shall maintain work areas in a clean and orderly condition. Work areas shall be kept clean daily, upon completion of work, as when necessary, and while work is in progress.
2. Walkways, aisles, stairways, fire escapes and all other passageways shall be kept clear of all obstruction and maintained or repaired in good condition.
3. Egress pathways must remain clear at all times to exits, fire alarms, fire extinguishers, and other emergency equipment.
4. Keep floors, working surfaces, and passageways free from protruding nails, splinters loose boards or openings.
5. Perform cleaning and sweeping in a manner to minimize dust generated.
6. Cover hoses and electrical conductors across aisles or passageways or suspend them overhead to prevent tripping hazards. They should be kept clear of ladders, stairs and passageways as best as possible.
7. Mark and allow for safe clearances of aisles, loading docks, doorways and where corners exist.
8. Store containers, bundles, construction materials and other equipment in tiers, stacked, blocked or interlocked and limited in height so they are stable and secure against falling, sliding, or collapse.

9. Keep storage areas free of materials that are combustible, pose fire, explosion or pest harborage.
10. Maintain lunchrooms, washrooms and restrooms in a clean and sanitary condition
11. Tools and materials should not be placed where they will cause slip or trip hazards, or where they may fall and strike personnel working below.
12. Spills or accumulation of oil or water on floors shall be cleaned up promptly.
13. Provide containers for separation and disposal of waste, trash, oily or used rags and refuse. Scrap should be sorted as best as possible by type of material, i.e., steel, hazardous material, etc. and disposed of properly.

Safety Meetings

Weekly jobsite tool-box safety meetings are conducted by the superintendent/ foreman with all employees and craft personnel on the jobsite. The purpose is for effective safety awareness and communication to be established between all levels of employees on Foushée projects.

1. Be certain everyone knows the time and place of the next meeting.
2. Insist that everyone attend. Before the next meeting, remind those who were late or failed to attend that attendance is not optional.
3. Select an appropriate site-specific topic.
4. Start the meeting on time.
5. Don't waste time – give the meeting your undivided attention.
6. Discuss the topic you have chosen and prepared. Don't wait until the meeting to choose your topic.
7. Use handouts or posters to illustrate your topic.
8. Discuss current job site safety events, injuries and close calls.
9. Encourage employees to discuss safety problems as they arise. Do not save safety concerns for the meeting. Allow some time for employee questions or input at the end of the meeting.
10. Invite managers or owners to speak. Ask fellow employees to speak on a safety topic.
11. If you prevented *one* injury, it is time well spent. Your topic may be one that some employees have heard many times, but there may be one person who is new or has never been told of the safety requirement for that topic. Repeating topics several times during the course of a project is beneficial as long as it applies to the work being done.
12. Follow up on employee concerns or questions and get back to them with the answer before the next meeting.
13. Document the attendance and topics discussed on the Safety Meeting Agenda form.

EHS Forms and Documents

- ***Safety Meeting Agenda with Inspection Form***

Safety Bulletin Board

A. Purpose: To increase employee's safety awareness and convey the company's safety message. If a proper place can be found for a bulletin board, this is a good tool.

B. The following items are required to be posted:

1. WISHA poster (F416-081-00)
2. Industrial Insurance poster (F242-191-000)
3. Wage and hour laws (F700-053-000)
4. Citation and Notice (as appropriate). If a Citation and Notice is received, it must be posted until all violations are abated.
5. Emergency Telephone Numbers Posted (as appropriate).
6. OSHA 300 Summary (required February 1 thru April 30 of each year)
7. Map of emergency muster point location
8. First Aid/ Medical Clinic/ Hospital maps and information

C. Suggested Items:

1. Safety and health posters
2. Minutes of crew/leader safety meetings
3. Date, time, and place of next safety meeting
1. Information about any recent incidents
2. Safety awards/employee recognition
3. Hazard communication information
4. Pertinent safety concerns, news clippings and other off-the-job items that may be of significant importance to employees.

Subcontractor Compliance

All subcontractors performing work on Foushée job sites shall follow and comply with Foushée's Accident Prevention Plan, Safety and Health Program, and project safety and health requirements including but not limited to regulatory required safety training, hazard analysis, housekeeping, safety orientations, personal protective equipment, safety inspections, weekly safety meetings and accident and incident reporting and investigating requirements. Each subcontractor shall maintain at a minimum a copy of their project specific safety plan and safety data sheets and submit their Subcontractor Safety Plan Checklist to Foushée during their subcontract process and prior to performing work.

The subcontractor and its subtier subcontractors shall take all reasonably necessary safety precautions pertaining to their work and work performance, including compliance with applicable laws, ordinances, regulations and orders issued by a public authority, whether federal, state, local, OSHA/WISHA or other, and any safety measures requested by Foushée.

Purpose

To afford employees immediate and effective attention should an injury result.

To meet the above objectives, the following procedures will be followed:

a. All supervisors or persons in charge of crews will be first aid trained unless their duties require them to be away from the jobsite. If so, other persons who are certified in first aid will be designated as the recognized first aider.

b. Valid first aid cards are recognized as ones that include both first aid and cardiopulmonary resuscitation (CPR) and have not reached the expiration date.

First aid training, kits, and procedures will be in accordance with the requirements of the general safety and health standards (WAC 296-800).

First Aid Kits and Stations

a. First aid kits on core and shell projects are located in the field trailer. First aid kits on Tenant Improvement projects are located at the field office. The project superintendent will notify employees and subcontractors of these locations.

b. The project foreman is designated to ensure that the first aid kits are properly maintained and stocked. Contact the Safety Department for assistance.

Posters and Information

Posters listing emergency numbers, procedures, etc., are located on the safety board.

Purpose

Personal protective equipment (PPE) is to protect workers eyes, face, head, body, arms, hands, legs, and feet from hazards and injury. All site personnel on Foushée jobsites shall wear the following minimum personal protective equipment. Exceptions are the jobsite office.

Policy

This policy applies to all Foushée jobsites.

Responsiblity

Foushée: provides to their employees the following PPE: hard hats, safety glasses, vests, ear plugs, respirators, eye/face protection, fall protection, and special task specific PPE when required.

Superintendent/ foreman: Require employees to properly care and use of all required personal protective equipment (PPE).

Employees are responsible for the proper handling, care, and inspection of protective equipment. Defective equipment will not be used and shall be reported to the supervisor.

1.0 Personal Protective Equipment Requirements

1.01 **Minimum clothing requirements:** A short-sleeved shirt; long pants; and shoes that meet the requirements of WAC 296-155-212, Foot protection.

1.02 Where there is a danger of contact with moving parts of machinery, or the work process is such that a hazard exists:

- The clothing of employees must fit closely about the body.
- Dangling neck wear, bracelets, wristwatches, rings, or similar articles must not be worn by employees.

2.0 Minimum Personal Protective Equipment Requirements

- Hard hat ANSI Z89.1
- Eye protection ANSI Z87.1
- High visibility garments
- Work shoes/boots

3.0 Head Protection

3.01 ANSI Z89.1 approved head protection/ hard hats shall always be worn by employees on a construction site.

- Each employee is responsible for the care of their hat. If the band becomes worn, it shall be reported to the supervisor who will ensure its replacement.
- Exceptions: Employees working on asphalt paving crews exposed to extreme temperatures from hot mix and not exposed to falling objects do not have to wear protective hard hats.

4.0 Eye/Face Protection

5.01 Eye protection is mandatory and shall be worn at all times by all employees during construction work activities.

- Eye and face protection must be ANSI Z87.1 compliant.
- Tinted lenses may only be worn when working outdoors.
- Individuals using prescription eyewear must use proper ANSI eye protection.
- Face/eye protection must be worn when using machines, equipment, or operations that create potential flying debris hazards, face injury, and/or working overhead. Eye protection must be worn when using face protection. Functions recognized as having exposure for which Face/eye protection shall be worn include:

  a. Chipping, grinding, cutting, welding, boring, breaking, etc.
  b. Handling or using hot liquids or substances.
  c. Testing or filling apparatus with liquids and gasses under pressure.
  d. Chemical handling, mixing and injection.
  e. Operation of any machine shop power or impact equipment.

5.0 High Visibility Clothing

5.01 High visibility clothing or vests will be worn at all times on “core and shell” projects and when exposed to vehicles/equipment.

5.02 Hours of darkness – requires a Class 2 high visibility orange/yellow-green with reflective bands safety vest, shirt, or jacket.

6.0 Foot Protection

6.01 Substantial footwear, made of leather or other equally firm material with non-slip soles must be worn.

6.02 No tennis shoes, canvas tops, thin or soft soled athletic shoes, open toed sandals, slippers may be worn.

7.0 Gloves

7.01 Cut resistant gloves Level-3 or greater are required when exposed to tasks that present potential sharp hazards, cuts and lacerations. Task specific activities include: material handling, form work, heavy loads, sharp objects, glass handling, sheet metal.

7.02 Chemical protective gloves must be worn when there is potential skin contact with chemicals. (Refer to manufacturer SDS and consult Safety Department for determination).

8.0 Respiratory Protection

9.01 Respirators are required to protect employees from inhaling hazardous chemicals in the form of gases, vapors, mists or dust (contact Safety Department for determination).

9.0 Hearing Protection

9.01 Hearing protection will be provided to employees to ensure protection from exposure to noise in excess of 85 dBA. Ear plugs are available for use in our tool shacks.

10.0 Leg Protection

10.01 Employees who operate a chain saw must wear leg protection constructed with cut-resistant material. The leg protection must extend from the upper thigh down to the boot top and adequately cover the leg.

10.02 Leg protection is available in a variety of forms, including chaps, logger pants, and leggings. The protective material also comes in a variety of forms including ballistic nylon, polyester, Kevlar, Engtek, etc.

11.0 Life Saving Devices

11.01 When working over water or where danger of drowning exists, workers will be provided and wear U.S Coast Guard approved life saving device.

11.02 A lifesaving skiff must be available at locations where employees are working over water.

* **Contact Safety Department for determination.**

Safety

Aerial Equipment

Purpose

The purpose of this program is to establish safe work procedures for employees working in, on or around aerial work platforms.

Policy

This policy applies to all Foushée jobsites.

Procedure

1.0 General Requirements

1.01 When working from the platform:
   a. Keep a firm footing on the platform
   b. Do not use guardrails, planks, ladders, or any other device to gain additional height or reach.

2.0 Boom lifts

2.01 Wear a full body harness and lanyard fixed to manufacturer provided and approved attachment points.

2.02 Do not attach a lanyard to an adjacent pole, structure, or equipment.

2.03 Do not exceed the rated capacities of the platform when transferring loads to the platform at any height.

2.04 Special tools, fittings, or masts designed for use on energized equipment are accepted.

2.05 Always avoid direct contact between the basket, supporting boom on aerial equipment and energized high voltage conductors.

2.06 Clearly visible flashing warning lights shall be operating on all motor vehicles when using aerial equipment exposed to traffic.

2.07 You must make sure the boom is properly cradled and the outriggers are in the stowed position before moving aerial lift.

2.08 Aerial lifts should be moved with the boom or basket lowered to the base. Limit moving aerial equipment with the platform raised to small the immediate adjacent area of work.

2.09 When using aerial equipment on inclines, then the extension and wheel inclination must be safe and within manufacturer's recommendations.

3.0 Controls of Aerial Equipment

3.01 The lower controls on aerial equipment shall be capable of overriding all controls in the elevated position.

4.0 Operation of Aerial Equipment

4.01 Warm up aerial equipment and make an operating test made before use.

4.02 The manufacturer's operation and maintenance manual shall be available. The operating instructions, proper sequences and maintenance procedures prescribed by the manufacturer should be followed.

4.03 Set brakes and when outriggers are used, position on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline, if they can be safely installed.

5.0 Capacity

5.01 The rated load capacity shall be posted at a conspicuous place on the equipment and shall be kept in a legible condition.

5.02 Do not load aerial lifts in excess of manufacturers rated capacity.

6.0 Operator authorization and training

6.01 Only trained and authorized personnel are allowed to operate aerial lifts/elevating work platforms.

6.02 Operator trainees must operate the aerial lift, under the direction of a qualified person, for enough time to demonstrate proficiency.

6.03 Operator retraining is required if evaluation and observation of the operator indicates retraining is necessary.

6.04 You must instruct operators in all of the following before they are directed to operate an aerial lift with which they are not familiar:

a. Location of the manuals;

b. Purpose and function of all controls;

c. Safety devices and operating characteristics specific to the aerial lift.

7.0 Modifications

7.01 You must have written approval from the manufacturer before making any modification or addition that affects the safe operation, stability, intended use, or the mechanical, hydraulic, or electrical integrity of the aerial lift.

8.0 Condition

8.01 Inspect and maintain elevating work platforms to keep them in proper operating condition. Immediately remove from service any aerial lift that is not in proper operating condition.

9.0 Operator prestart inspection

9.01 Operator will conduct a prestart inspection of the aerial lift. A qualified person must examine or test any items found during the inspection that are thought to be unsafe, to determine if they constitute a safety hazard.

10.0 Workplace survey

10.01 The operator must survey the area, before using an aerial lift for hazards before and during use. Set the brakes and make sure outriggers, when used, are positioned on pads or a solid surface. Install wheel chocks when using the aerial lift on an incline if they can be installed safely.

11.0 Repairs and adjustments

11.01 Repairs must be made by a qualified person; and according to the manufacturer's recommendations.

EHS Forms and Documents

* ***Daily Aerial Lift Inspection Form***

Purpose

To protect employees from hazards when entering and working in confined spaces. This program applies to all confined spaces in your workplace, employees that will enter another employer's confined space(s) and contractors/subcontractors that will enter confined space(s).

Policy

No person(s) shall enter a confined space (i.e. any manhole, tank or vessel) without the approval of the entry supervisor, and until all the confined space procedures have been completed and submitted and trained attendants and entrants have been designated. This policy applies to all personnel and Contractors/Subcontractors.

Definitions

"Alternative methods" Permit-required confined space using alternative methods. An alternative process for entering a permit space under very specific conditions outlined in the Alternative Methods section of this chapter. The employer must complete documentation as required per the Alternative Methods section of this chapter to communicate to the workers the space conditions. That documentation includes: the location of the space, the date of entry, the duration of the entry, the hazards of the space and the work, the specific measures used to eliminate the hazards, the ventilation system used to control the atmospheric hazards, all conditions required to evacuate the space and the name, title, and signature of the entry supervisor.

"Calibration" Checking a direct reading instrument against an accurate standard such as a calibration gas to determine deviation and correct for analytical errors.

"Confined space" A space that is all of the following:

a. Large enough and arranged so an employee could fully enter the space and work.
b. Has limited or restricted entry or exit. Examples of spaces with limited or restricted
c. entry are tanks, vessels, silos, storage bins, hoppers, vaults, excavations, and pits.
d. Not primarily designed for continuous human occupancy.

"Engulfment" The surrounding and effective capture of a person by a liquid or divided (flowable) solid substance that can be inhaled to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

"Enter (entry)" The action where any part of a person's body breaks the plane (passes through an opening) into a confined space. Entry occurs as soon as any part of the entrant's body breaks the plane of the opening into the space whether or not such action is intentional, or any work activities are actually performed in the space. Note: When the opening is large enough for the worker to fully enter the space, a permit is required even for partial body entry. Permits are not required for partial body entry, where the opening is not large enough for full entry.

Procedure

1.0 Training

1.01 All employees involved in confined space activities will be trained to understand the knowledge and skills necessary to safely perform their assigned duties. Foushée and subcontractors will provide confined space training to their employees at the following times:

a. When hired, so new employees are aware of confined spaces.
b. Before they are assigned permit-required confined space entry duties.
c. Before they are assigned alternative method confined space entry duties.
d. When their assigned duties change.
e. When there is a change in conditions that creates hazards for which they have
f. not been trained.
g. Retraining will be conducted when the company has any reason to believe employees are not proficient at their confined space duties, including procedural changes, if they are not following existing procedures and/or if employee's knowledge or use of the company procedures are inadequate.

1.02 Employees will be trained on:

a. The difference between permit-required and alternative methods confined space.
b. Their designated role(s) and responsibilities in the entry procedure(s).
c. How to identify and evaluate the hazards associated with permit-required and/or
d. alternative entry method confined spaces.
e. Use and maintenance of equipment.
f. Confined-Space Entry Program
g. Rescue procedures (if necessary) and the dangers of attempting an unauthorized rescue.

* *Employee training certifications are available upon request. The certification at a minimum will contain the employee's name, the trainer's written or electronic signature and the dates of training.*

2.0 Confined-Space Entry Program

2.01 Attendant can terminate and order entrant(s) to exit the permit-required confined space at any time during the entry. When entry operations are complete, including securing an entrance cover, the Confined Space Entry Permit can be cancelled, and the entry terminated.

2.02 Entry Requirements for Alternative-Methods Entry

**Alternative-Methods Entry must ensure the only hazard present or potential hazard is atmospheric and it can be mitigated by continuous forced air ventilation with atmospheric testing to validate.*

2.03 Obtain a Confined Space Entry Permit Form and the proper equipment to test and ventilate the confined space for oxygen, combustible gases and vapors and toxic gases and vapors from the Program Administrator or Entry Supervisor.

2.04 Complete the Confined Space Entry Permit Form and mark the box for alternative methods confined space.

2.05 Implement all measures necessary to prevent unauthorized entry into permit-required confined spaces.

2.06 Test for atmospheric hazards, in this order: Oxygen, combustible gases and vapors, toxic gases and vapors. Allow each entrant or their authorized representative an opportunity to observe the testing. This includes pre-entry and subsequent/continual monitoring of the permit-required confined spaces. Testing must be done before entry and during entry.

2.07 Ventilation shall be maintained at all times when employees are working in alternative methods confined spaces.

2.08 Evacuate employees from the space immediately when any of the following occurs: Detection of a hazardous atmosphere by air-monitoring instruments, failure of air-monitoring instruments, failure of ventilation systems and/or if there is an introduction of a hazard, a hazard develops, or conditions change within the alternative methods confined space. If an alternative method confined space is evacuated it cannot be re-entered as alternative methods confined space unless the conditions that caused the evacuation are corrected and you must treat any re-entry as a new entry.

Confined Space Entry Permit

Project Name/Number:									
Type of Entry:	○ Permit Required Confined Space					○ Alternative Methods Confined Space			
Space ID/Location:									
Purpose of Entry:									
Space Description:									
Authorized Permit Duration:	Start Date & Time:					End Date & Time:			
Entry Supervisor						Title:			
Authorized Entrant(s):									

HAZARDS INHERENT TO THE SPACE		HAZARD(S) INTRODUCED TO THE SPACE
○ Outside Space	○ Heat/ Cold	○ Paints/ Sealants/ Caulk
○ Space Access	○ Fall	○ Cleaning Chemicals
○ Atmospheric	○ Lighting	○ Solvents
○ Natural Gas Lines	○ Biological	○ Corrosives
○ Sewer Lines	○ Entrapment	○ Heat
○ Water Lines	○ Engulfment	○ Grinding
○ Electrical	○ Fire	○ Sanding
○ Configuration	○ Explosion	○ Welding/ Cutting
○ Chemical	○ Lighting	○ Tools that may Spark
Other:		Other:

Acceptable Entry Conditions

1. Affected Departments and/or Personnel Notified?							N/A	Yes	No
Departments that were notified:									
2. Confined Space Perimeter Setup and Secure?							N/A	Yes	No
3. Atmospheric Testing?							N/A	Yes	No
Air Monitoring	Acceptable Limits	Prior to Ventilation	After Ventilation	Reading/ Time	Reading / Time	Reading/ Time	Reading/ Time	Reading/ Time	Reading/ Time
O2	19.5-23.5%								
% LEL	<10%								
CO	<25 PPM								
H2S	<10 PPM								
Other	<PEL/TLV								
Tested By:			Meter ID:			Last Calibration Date:			
4. Lockout Tagout of Hazardous Energy Sources						Prior to entry	N/A	Yes	No
5. Space Ventilation									
Ventilation Equipment Used									
Fan ID:	Fan CFM	Other:							
6. Communication Method	○ Radio	○ Voice	○ Visual	○ Cell	Other:				
7. Lighting							N/A	Yes	No
Lighting used:									
8. PPE Required							N/A	Yes	No
○ Hard Hat	○ Safety Glasses	○ High Visibility	○ Gloves	Other:					
9. Other Permits Attached (i.e., LOTO Checklist and Hot Work Permit)							N/A	Yes	No
10. Rescue									
Rescue Equipment							N/A	Yes	No
Rescue Equipment Used:									
Rescue and Emergency Services Available							N/A	Yes	No
Rescue and Emergency Services Used:									
*When using 3rd party rescue services; provide additional contact information and rescue plan to this permit									

Equipment List

○ Ventilation Fan and Venting	○ Ladder or other Access Equipment
○ Extension Cord	○ Tools for the Job
○ Tripod with Winch and Lifeline/ Harness	○ Fire Extinguisher
○ Radio	○ First Aid Kit
○ Lighting	○ Barriers
○ 4-Gas Meter	○
Other Equipment:	

Do Tools need to Be Intrinsically Safe?	N/A	Yes	No

Confined Space Entry Permit Close-Out				
Permit Cancelled?		N/A	Yes	No
Space Vacated?	Yes	Date / Time		No
Reason:				
By:				
Post Entry Evaluation: (comments for Improvements/problems Encountered, Etc.)				

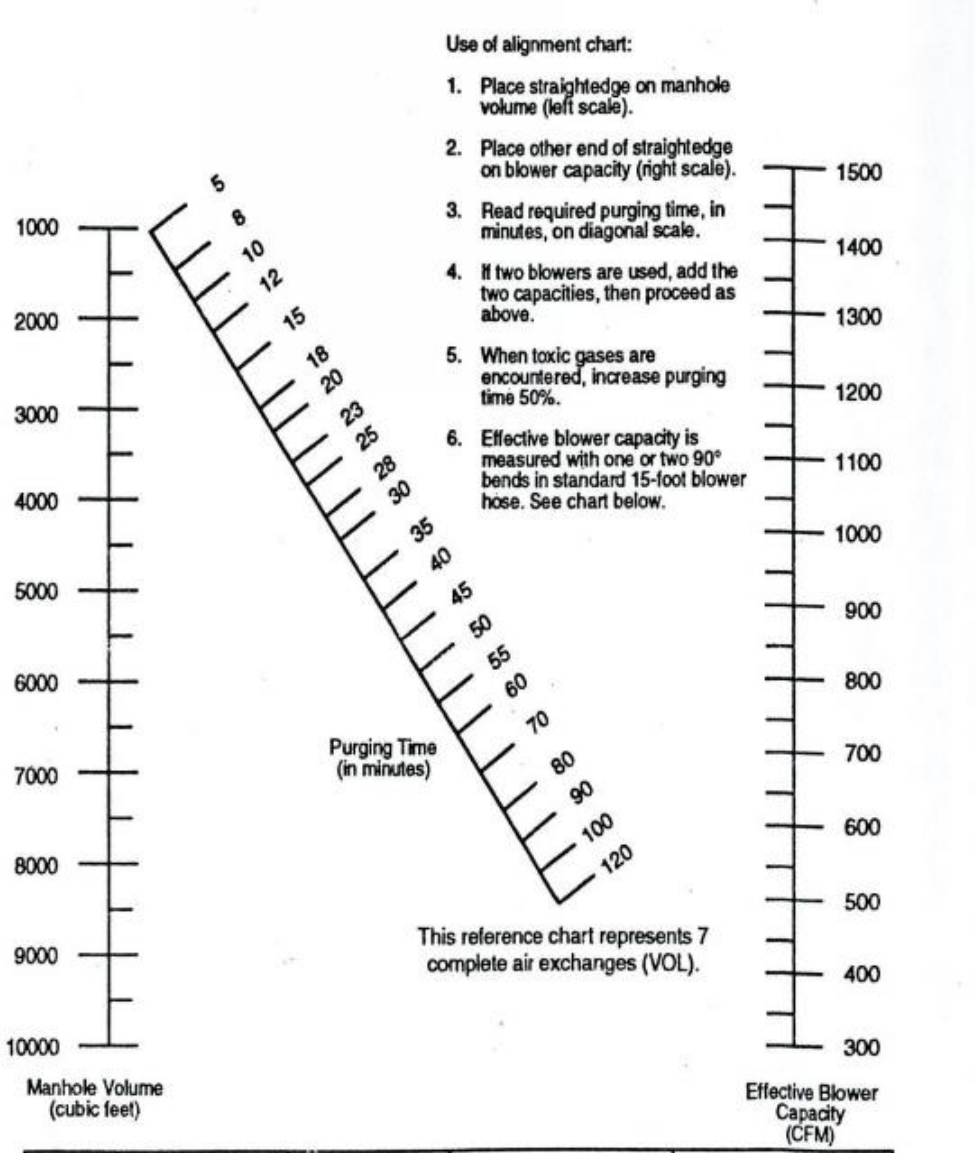
Supervisors Signature: _____

Attendants:			
Entrants:			

EHS Forms and Documents

- ***WCISAP Substance Abuse Program Test Authorization***

Purging Diagram



Effective blower capacity (CFM)	Conventional manhole (1,000–10,000 cu. ft.)	Offset access manhole (with permanent ventilating duct)	Deep neck manhole		Irregular shape manhole	
			Permanent ventilating duct	Coupled hose	Uncongested	Congested
One 90° bend	X	X	X		X	
Two 90° bends				*X		X

* Use blower capacity with two 90° bends unless blower has been certified with coupled hose with one 90° bend.

CSE 6 0892

Purpose

The purpose of this section is to ensure that all employees are involved in the safe planning, set-up, operation and dismantling of each crane. This policy is meant to provide general information about cranes. The OSHA Crane Standard or Washington's DOSH should be referenced for more specific information. Program will be reviewed annually and evaluated. If evaluation reveals a need for change, employees will be retrained. All training will be documented.

Procedure

This program applies to all operations that involve the use of cranes and hoists used in/around or attached to buildings at all Foushée jobsites.

Definitions

"A/D Director (Assembly/Disassembly Director)" means an individual who meets requirements for A/D director, irrespective of the person's formal job title or whether the person is non-management or management personnel.

"Articulating Boom Crane (ABC)" cranes with knuckle booms articulated by hydraulic cylinders, which are powered by internal combustion engines or electric motors and are mounted on a mobile chassis or stationary installation (B30.22). Frequently, articulating/knuckle-boom truck cranes deliver material to a construction site and are used to transfer building supply sheet goods or building supply packaged materials from the truck crane onto a structure, using a fork/cradle at the end of the boom

"Blocking" (also referred to as "cribbing" – is wood or other material used to support equipment or components and distribute loads to the ground. It is typically used to support lattice boom sections during assembly/disassembly and under outrigger and stabilizer floats.

"Competent person" one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

"Controlling Entity" the prime contractor, general contractor, construction manager or any other legal entity which has the overall responsibility for the construction of the project – its planning, quality and completion.

"Crane Operator" is one who directly controls the crane's functions

"Crane Owner" is defined as having custodial control of a crane by virtue of lease or ownership.

"Crane User" arranges the crane's presence on a worksite and controls its use.

"Critical Lift" any hoisting operation where any of the following are met **REQUIRES SAFETY AUTHORIZATION.**

a. Two or more pieces of lifting equipment are required to work in unison.
b. Special lifting equipment or non-standard crane configurations are used.
c. The load is greater than 50 tons.
d. The load represents more than 75% of the manufacturer's rating chart at the working radius and crane configuration. This applies to both mobile and tower cranes.
e. The load represents a significant cost, requires a significant lead-time to order, is critical to the project, or is irreplaceable.

f. The load is lifted over or near occupied buildings, operating equipment or power lines.

g. A “pick and carry” operation is required.

“Fall Zone” means the area (including but not limited to the area directly beneath the load) in which it is reasonably foreseeable that partially or completely suspended materials could fall in the event of an accident. Fall zone means the area (including but not limited to the area directly beneath the load) in which it is reasonably foreseeable that partially or completely suspended materials could fall in the event of an accident.

“Ground conditions” means the ability of the ground to support the equipment (including slope, compaction, and firmness).

“Lift Director” (typically a general foreman) oversees the work being performed by a crane and the associated rigging crew.

“National Commission for the Certification of Crane Operators (NCCCO)” NCCCO was formed in January 1995 as a non-profit organization to develop effective performance standards for safe crane operation to assist all segments of general industry and construction. For more information, visit http://nccco.org

“Qualified Person” a person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, successfully demonstrated the ability to solve/resolve problems relating to the subject matter, the work, or the project.

“Qualified Rigger” the qualified person engaged in configuring and rigging a load to be hoisted. This person must meet the criteria specified for a qualified person.

“Signal Person” the qualified person responsible for handling a hoisted load, whether through physical contact, or communication with an equipment operator. This person must meet the criteria specified for a qualified person.

“Site Supervisor” (typically the superintendent) exercises control over the worksite on which a crane is being used and over the work that is being performed on that site.

“Supporting materials” means blocking, mats, cribbing or similar supporting materials or devices.

1.0 Ground Conditions

1.01 Equipment must not be assembled or used unless ground conditions are firm, drained and graded to a sufficient extent so that, in conjunction with the use of supporting materials, the equipment manufacturer’s specifications for adequate support and degree of level of the equipment are met. The requirement for the ground to be drained does not apply to marshes or wetlands

1.02 Controlling entity must:

a. Ensure ground preparations necessary to meet the requirements in A.

b. Inform the operator of hazards beneath the soil (voids, tanks, utilities, etc.).

c. The A/D or the operator determines that ground conditions do not meet the requirements of Section A, and then there must be a discussion between that A/D employer and the controlling entity.

2.0 Crane Team: Management Oversight and Responsibilities

2.01 The following individuals will plan, manage, coordinate and ensure the safe set-up, operation, dismantling and oversight of cranes. A single individual may perform one or more of these

assignments concurrently.

a. Crane Owner
b. Crane User
c. Site Supervisor
d. Lift Director
e. Crane Operator
f. Assembly/Disassembly Director
g. Qualified Rigger/Signal Person

* *The safety director and site-safety representative will periodically observe operations that the provisions of this policy and DOSH requirements are being followed.*

2.02 Crane Owner

- The crane owner is defined as having custodial control of a crane by virtue of lease or ownership.
- Provide a crane which meets the specific job requirements defined by the crane user.
- Provide additional technical information when requested by the crane user.
- Provide field assembly, disassembly, operation, maintenance information.
- Establish inspection, testing and maintenance program.
- Use qualified personnel for inspection, maintenance, repair, transportation, assembly, and disassembly.

2.03 Crane User

- Arranges the crane's presence on a worksite and controls its use.
- Comply with regulations and manufacturer's information.
- Use qualified people as supervisors for crane activities.
- Ensure the crane is in proper operating condition prior to initial use at worksite.
- Verify the crane has the necessary lifting capacity.
- Use personnel who are qualified.
- Ensure the operator has been notified of adjustments or repairs that have not been completed.
- Ensure all personnel involved are aware of the responsibilities, assigned duties and the associated hazards.
- Ensure the inspection, testing, and maintenance programs specified by the crane owner are followed.

2.04 Site Supervisor

- The site supervisor (typically the superintendent) is responsible for ensuring that the requirements of this policy are followed and will coordinate all planning and delegation of duties including designating the crane team. If needed, the site supervisor may delegate

duties to other members of the on-site staff.

- The site supervisor will ensure that all subcontractors responsible for any lifting operations on-site are informed of the requirements of this policy during the pre-construction meeting.
- The site supervisor has the knowledge and authority to stop or change work if crane operations are deemed unsafe. The specific duties of the site supervisor include:
- Ensures that a qualified person is designated as the lift director.
- Ensures that crane operations are coordinated with other job site activities which will be affected by or will affect lift operations.
- Ensures the area for the crane is prepared:
- Access roads.
- Sufficient room for assembly/disassembly.
- Operating area is suitable for the crane with respect to levelness surface conditions, support capacity, proximity to power lines, excavations, etc.

2.05 Permits special lifting operations only when equipment and procedures required by this part, the crane manufacture or a qualified person are employed:

- Multiple crane lifts
- Multiple load line lifts
- Lifting personnel
- Pick and carry operations
- Loads are picked using a sling/basket configuration
- Ensures the crane is inspected and maintained.
- Ensures crane operators are qualified.
- Ensures the rigging crew is supervised by a qualified person.
- Ensures crane maintenance is performed by a certified person.
- Contact local jurisdiction for additional safety items i.e., FAA requirements, highway right-a-way requirements.

2.06 Lift Director

- The lift director (typically a general foreman) oversees the work being performed by a crane and the associated rigging crew and must:
- Be present at the job site and overseeing the lifting operations.
- Ensure site preparation is adequate to support crane operations and is completed before crane operations commence.
- Ensure personnel involved in crane operations understand their assigned duties and associated hazards.
- Address safety concerns and is responsible if he overturns those concerns.

- Ensure compliance when working near power lines.
- Ensure assigned signal persons are qualified.
- Ensure the load is properly rigged.
- Coordinate and schedule subcontractor crane lifts.
- Ensure precautions are implemented in special lifting operations.

*Subcontractors shall identify their lift director for their crane activities.

2.07 Crane Operator

- The crane operator is one who directly controls the crane's functions and must:
- Be certified by accredited testing agency.
- Must have written and practical exam for type of crane they are operating.
- Hours of experience for type of crane using DOSH table.
- Pass a substance abuse test.
- Understands and reviews site conditions that could adversely affect the crane operation with lift director.
- Understands and applies information contained in the crane manufacturer's operation manual.
- Understand crane functions, limitations, as well as its particular operating characteristics.
- Refuses to operate the crane when any portion of the load or crane would enter the prohibited zone of energized power lines.
- Follows crane's load/capacity chart(s) and diagrams.
- Does not engage in any practice that will divert their attention during actual operation of the crane controls.
- Tests the crane function controls that will be used and operates the crane only if those function controls respond properly.
- Operates the crane's functions, under normal operating condition in a smooth and controlled manner.
- Knows and follows the procedures specified by the manufacturer or approved by a qualified person, for assembly, disassembly, setting up and reeving the crane.
- Inspect the crane before the start of each shift and, as needed, report any deficiencies to the project superintendent.
- Inspect the crane daily, weekly and monthly and document the results of the inspection in the inspection sheet.
- Carry out routine maintenance as required and report all corrections to the project superintendent and crane manufacturer.
- Leave the crane in a safe condition when unattended, i.e. power or engine switched off and keys removed.
- Leave the crane when out of service (e.g. overnight or in high winds) in a safe and secure condition in accordance with the manufacturers' instructions.

2.08 Assembly/Disassebly Director

- Crane (Including mobile cranes) assembly or disassembly must be controlled by an Assembly/Disassembly Director (A/D Director).
- Must comply with: Manufacturer procedures or employer procedures, which must be developed by a qualified person.
- Verifies pre-arrival inspection has been completed.
- Inspects all crane components prior to assembly.
- Prevent unintended dangerous movement or collapse of any part of the equipment.
- Provide adequate support and stability of all part of the equipment.
- Position employees involved in the assembly/disassembly operation to minimize their exposure to unintended movement or collapse of the equipment.
- An A/D Director is an individual who meets the criteria for both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons.
- The A/D Director must understand the applicable assembly/disassembly procedures and reviewed them before staring assembly.
- The A/D Director must ensure that the crew members understand all of the following:
- Their tasks.
- The hazards associated with their tasks.
- The hazardous positions/locations that they need to avoid.

2.09 The A/D Director must also address twelve key hazards:

- Adequate site and ground conditions.
- Sufficient blocking for load and stability.
- Suitable boom and jib pick points.
- Identify center of gravity.
- Stability for pin removal.
- Consider wind speed and weather.
- The suitability of blocking material.
- Verification of the loads for assist cranes.
- Snagging of cables or components.
- Struck by counterweights.
- Boom hoist brake failure.
- Loss of backwards stability.

2.010 Rigging And Signal Person Qualification

a. The employer of the signal person must ensure that each signal person meets the Qualification Requirements prior to giving any signals. Each signal person must meet the following qualifications:

1. Know and understand the type of signals used.
2. Competent in the application of the type of signals used.
3. Have a basic understanding of equipment operation and limitation, crane dynamics and boom deflection.
4. Demonstrate through a verbal or written test and through a practical test.
5. Documentation from qualified evaluator.
6. Retested every 5 years.

b. If subsequent actions by the signal person indicate that the individual does not meet the Qualification Requirements, the employer must not allow the individual to continue working as a signal person until re-training is provided and a re-assessment is made that confirms that the individual meets the Qualification Requirements.

c. Each rigger must meet the following qualifications:

1. Know and understand rigging selection and capacity ratings.
2. Know and understand the type of sling and hitch used.
3. Competent in the application of the type of hitches used.
4. Basic understanding of crane operation.
5. Demonstrate through a verbal or written test and through a practical test.
6. Documentation from qualified evaluator.
7. Retested every 5 years.

3.0 Assembly Disassembly Requirements

3.01 Supervision – competent-qualified person.

3.02 Assembly/disassembly must be directed by a person who meets the criteria for both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons (“A/D director”).

3.03 Where the assembly/disassembly is being performed by only one person, that person must meet the criteria for both a competent person and a qualified person. For purposes of this standard, that person is considered the A/D director.

3.04 The A/D director must understand the applicable assembly/disassembly procedures.

3.05 The A/D director must review the applicable assembly/disassembly procedures immediately prior to the commencement of assembly/disassembly unless the A/D director understands the procedures and has applied them to the same type and configuration of equipment (including accessories, if any).

3.06 Before being put into service, all cranes must have a valid DOSH approved certification by a DOSH approved inspector. Tower cranes have additional inspections (See Tower Crane Policy).

4.0 Crew instructions

4.01 Before commencing assembly/disassembly operations, the A/D director must ensure that the crew members understand all of the following:

- Their tasks.
- The hazards associated with their tasks.
- The hazardous positions/locations that they need to avoid.

4.02 During assembly/disassembly operations, before a crew member takes on a different task, or when adding new personnel during the operations, the requirements of this section must be met.

4.03 Addressing specific hazards. The A/D director supervising the assembly/disassembly operation must address the hazards associated with the operation, which include:

4.04 Site and ground bearing conditions. Site and ground conditions must be adequate for safe assembly/disassembly operations and to support the equipment during assembly.

4.05 Blocking material. The size, amount, condition and method of stacking the blocking must be sufficient to sustain the loads and maintain stability.

4.06 Proper location of blocking. When used to support lattice booms or components, blocking must be appropriately placed to:

4.07 Protect the structural integrity of the equipment, and

4.08 Prevent dangerous movement and collapse.

4.09 Verifying assist crane loads. When using an assist crane, the loads that will be imposed on the assist crane at each phase of assembly/disassembly must be verified before assembly/ disassembly begins.

4.010 Boom and jib pick points. The point(s) of attachment of rigging to a boom (or boom sections or jib or jib sections) must be suitable for preventing structural damage and facilitating safe handling of these components.

4.011 The center of gravity of the load must be identified if that is necessary for the method used for maintaining stability.

4.012 Where there is insufficient information to accurately identify the center of gravity, measures designed to prevent unintended dangerous movement resulting from an inaccurate identification of the center of gravity must be used.

4.013 Stability upon pin removal. The boom sections (including tower crane sections), boom suspension systems (such as gantry A-frames and jib struts), and components must be rigged or supported to maintain stability upon the removal of the pins.

4.014 Snagging. Suspension ropes and pendants must not be allowed to catch on the boom or jib connection pins or cotter pins (including keepers and locking pins).

4.015 Struck by counterweights. The potential for unintended movement from inadequately supported counterweights and from hoisting counterweights.

4.016 Boom hoist brake failure. Each time reliance is to be placed on the boom hoist brake to prevent boom movement during assembly/disassembly; the brake must be tested prior to such reliance to determine if it is sufficient to prevent boom movement. If it is not sufficient, a boom hoist pawl, other locking device/back-up braking device, or another method of preventing dangerous movement of the boom (such as blocking or using an assist crane) from a boom hoist brake failure must be used.

4.017 Loss of backward stability. Backward stability before swinging the upper-works, travel, and when attaching or removing equipment components.

4.018 Wind speed and weather. The effect of wind speed and weather on the equipment.

4.019 Outriggers and Stabilizers. When the load to be handled and the operating radius require the use of outriggers or stabilizers, or at any time when outriggers or stabilizers are used, all of the following requirements must be met (except as otherwise indicated):

4.020 The outriggers or stabilizers must be either fully extended or, if manufacturer procedures permit, deployed as specified in the load chart.

4.021 The outriggers must be set to remove the equipment weight from the wheels.

4.022 When outrigger floats are used, they must be attached to the outriggers. When stabilizer floats are used, they must be attached to the stabilizers.

4.023 Each outrigger or stabilizer must be visible to the operator or to a signal person during extension and setting.

4.024 Outrigger and stabilizer blocking must:

- Meet the requirements in this section.
- Be placed only under the outrigger or stabilizer float/pad of the jack or, where the outrigger or stabilizer is designed without a jack, under the outer bearing surface of the extended outrigger or stabilizer beam.
- When rigging is used for assembly/disassembly, the employer must ensure that:
- The rigging work is done by a qualified rigger.
- Synthetic slings are protected from: abrasive, sharp or acute edges and configurations that could cause a reduction of the sling's rated capacity, such as distortion or localized compression.
- When synthetic slings are used, the synthetic sling manufacturer's instructions, limitations, specifications and recommendations must be followed.
- Due to the nature of the activity, all rigging will be documented before use.

5.0 Power Line Safety (Assembly / Disassembly)

5.01 Before assembling or disassembling equipment, the employer must determine if any part of the equipment, load line, or load (including rigging and lifting accessories) could get, in the direction or area of assembly/disassembly, closer than 20 feet to a power line during the assembly/disassembly process that is up to 350 kV or closer than 50 feet of a power line that exceeds 350 kV during the assembly/disassembly process. If so, you must meet the requirements in Option (1), Option (2), or Option (3), as follows:

- Option (1) – Deenergize and ground. Confirm from the utility owner/operator that the power line has been deenergized and visibly grounded at the worksite.
- Option (2) – 20 foot clearance. Ensure that no part of the equipment, load line or load (including rigging and lifting accessories), gets closer than 20 feet to the power line by implementing the measures specified in paragraph B of this section.
- Option (3) – Table A clearance.

5.02 Determine the line's voltage and the minimum approach distance permitted under Table 4 of this section.

5.03 Determine if any part of the crane/derrick, load line or load (including rigging and lifting accessories), could get closer than the minimum approach distance of the power line permitted under Table 4 of this section. If so, then you must follow the requirements in (b) of this subsection to ensure that no part of the crane/derrick, load line, or load (including rigging and lifting accessories), gets closer to the line than the minimum approach distance..

5.04 Preventing encroachment/electrocution. Where encroachment precautions are required under Option (2), or Option (3) of this section, all of the following requirements must be met:

5.05 Conduct a planning meeting with the Assembly/Disassembly director (A/D director), operator, assembly/disassembly crew and the other workers who will be in the assembly/disassembly area to review the location of the power line(s) and the steps that will be implemented to prevent encroachment/electrocution.

5.06 If tag lines are used, they must be nonconductive.

5.07 At least one of the following additional measures must be in place. The measure selected from this list must be effective in preventing encroachment. In addition, method chosen is to be included, with details, in lift plan. The additional measures are:

5.08 Use a dedicated spotter who is in continuous contact with the equipment operator. The dedicated spotter must:

- Be equipped with a visual aid to assist in identifying the minimum clearance distance. Examples of a visual aid include, but are not limited to: a clearly visible line painted on the ground; a clearly visible line of stanchions; a set of clearly visible line-of-sight landmarks (such as a fence post behind the dedicated spotter and a building corner ahead of the dedicated spotter).
- Be positioned to effectively gauge the clearance distance.
- Where necessary, use equipment that enables the dedicated spotter to communicate directly with the operator.
- Give timely information to the operator so that the required clearance distance can be maintained.
- A proximity alarm set to give the operator sufficient warning to prevent encroachment.
- A device that automatically warns the operator when to stop movement, such as a range control warning device. Such a device must be set to give the operator sufficient warning to prevent encroachment.
- A device that automatically limits range of movement, set to prevent encroachment.
- An elevated warning line, barricade, or line of signs, in view of the operator, equipped with flags or similar high-visibility markings.

5.01 Assembly/disassembly below power lines prohibited. No part of a crane/derrick, load line, or load (including rigging and lifting accessories), whether partially or fully assembled, is allowed below a power line unless the employer has confirmed that the utility owner/operator has deenergized and (at the worksite) visibly grounded the power line.

5.02 Assembly/disassembly closer than Table 4 clearance is prohibited. No part of a crane/derrick, load line, or load (including rigging and lifting accessories), whether partially or fully assembled, is allowed closer than the minimum approach distance under Table 4 (WAC 296-155-53408) to a power line unless the employer has confirmed that the utility owner/operator has deenergized and (at the worksite) visibly grounded the power line.

5.03 Voltage information. Where Option (3) of this section is used, the utility owner/operator of the power lines must provide the requested voltage information within two working days of the

employer's request.

5.04 Power lines presumed energized. The employer must assume that all power lines are energized unless the utility owner/operator confirms that the power line has been and continues to be deenergized and visibly grounded at the worksite.

5.05 Posting of electrocution warnings. There must be at least one electrocution hazard warning conspicuously posted in the cab so that it is in view of the operator and (except for overhead gantry and tower cranes) at least two on the outside of the equipment.

Table 4 — Minimum Clearance Distances

Voltage (nominal, kV, alternating current)	Minimum clearance distance (feet)
up to 50	10
over 50 to 200	15
over 200 to 350	20
over 350 to 500	25
over 500 to 750	35
over 750 to 1,000	45
over 1,000	As established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution.
Note: The value that follows ''to'' is up to and includes that value.	

6.0 Power Line Safety (up to 350kV – Equipment Operations)

6.01 Hazard assessments and precautions inside the work zone. Before beginning equipment operations, the employer must:

a. Identify the work zone by either:

- Demarcating boundaries (such as with flags, or a device such as a range limit device or range control warning device) and prohibiting the operator from operating the equipment past those boundaries, or
- Defining the work zone as the area 360 degrees around the equipment, up to the equipment's maximum working radius.
- Determine if any part of the equipment, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the work zone, could get closer than 20 feet to a power line. If so, the employer must meet the requirements in Option (1), Option (2), or Option (3) of this section, as follows:

b. Option (1) – Deenergize and ground. Confirm from the utility owner/operator that the power line has been deenergized and visibly grounded at the worksite.

c. Option (2) – 20 foot clearance. Ensure that no part of the equipment, load line, or load (including rigging and lifting accessories), gets closer than 20 feet to the power line by implementing the measures specified in paragraph (B) of this section.

d. Option (3) – Table A clearance.

Determine the line's voltage and the minimum approach distance permitted under Table 4 (WAC 296-155-53408).

6.02 Determine if any part of the equipment, load line or load (including rigging and lifting accessories), while operating up to the equipment's maximum working radius in the work zone, could get closer than the minimum approach distance of the power line permitted under Table 4 (WAC 296-155-53408). If so, then the employer must follow the requirements in paragraph (B) of this section to ensure that no part of the equipment, load line, or load (including rigging and lifting accessories), gets closer to the line than the minimum approach distance.

6.03 Preventing encroachment/electrocution. Where encroachment precautions are required under Option (2) or Option (3) of this section, all of the following requirements must be met:

6.04 Conduct a planning meeting with the operator and the other workers who will be in the area of the equipment or load to review the location of the power line(s), and the steps that will be implemented to prevent encroachment/electrocution.

6.05 If tag lines are used, they must be non-conductive.

6.06 Erect and maintain an elevated warning line, barricade, or line of signs, in view of the operator, equipped with flags or similar high-visibility markings, at 20 feet from the power line (if using Option (2) of this section) or at the minimum approach distance under Table 4 (WAC 296-155-53408) (if using Option (3) of this section). If the operator is unable to see the elevated warning line, a dedicated spotter must be used as described in WAC 296-155-53408 in addition to implementing one of the required measures

6.07 Implement at least one of the following measures:

a. A proximity alarm set to give the operator sufficient warning to prevent encroachment.

b. A dedicated spotter who is in continuous contact with the operator. Where this measure is selected, the dedicated spotter must:

- Be equipped with a visual aid to assist in identifying the minimum clearance distance. Examples of a visual aid include, but are not limited to: a clearly visible line painted on the ground; a clearly visible line of stanchions; a set of clearly visible line-of sight landmarks (such as a fence post behind the dedicated spotter and a building corner ahead of the dedicated spotter).
- Be positioned to effectively gauge the clearance distance.
- Where necessary, use equipment that enables the dedicated spotter to communicate directly with the operator.
- Give timely information to the operator so that the required clearance distance can be maintained.

6.08 A device that automatically warns the operator when to stop movement, such as a range control warning device. Such a device must be set to give the operator sufficient warning to prevent encroachment.

6.09 A device that automatically limits range of movement, set to prevent encroachment.

6.010 An insulating link/device, as defined in OSHA 1926.1401, installed at a point between the end of the load line (or below) and the load.

6.011 The requirements of paragraph (B)(4) of this section do not apply to work covered by subpart V of this part.

6.012 Voltage information. Where Option (3) of this section is used, the utility owner/operator of the power lines must provide the requested voltage information within two working days of the employer's request.

6.013 Operations below power lines.

6.014 No part of the equipment, load line, or load (including rigging and lifting accessories) is allowed below a power line unless the employer has confirmed that the utility owner/operator has deenergized and (at the worksite) visibly grounded the power line, except where one of the exceptions in paragraph (D)(2) of this section applies.

6.015 Exceptions. Paragraph (D)(1) of this section is inapplicable where the employer demonstrates that one of the following applies:

- The work is covered by subpart V of this part.
- For equipment with non-extensible booms: The uppermost part of the equipment, with the boom at true vertical, would be more than 20 feet below the plane of the power line or more than the Table A of this section minimum clearance distance below the plane of the power line.
- For equipment with articulating or extensible booms: The uppermost part of the equipment, with the boom in the fully extended position, at true vertical, would be more than 20 feet below the plane of the power line or more than the Table A of this section minimum clearance distance below the plane of the power line.
- The employer demonstrates that compliance with paragraph (D)(1) of this section is infeasible and meets the requirements of OSHA 1926.1410.
- Power lines presumed energized. The employer must assume that all power lines are energized unless the utility owner/operator confirms that the power line has been and continues to be deenergized and visibly grounded at the worksite.
- When working near transmitter/communication towers where the equipment is close enough for an electrical charge to be induced in the equipment or materials being handled, the transmitter must be deenergized or the following precautions must be taken:
- The equipment must be provided with an electrical ground.
- If tag lines are used, they must be non-conductive.

7.0 Training

7.01 The employer must train each operator and crew member assigned to work with the equipment on all of the following:

7.02 The procedures to be followed in the event of electrical contact with a power line. Such training must include:

- Information regarding the danger of electrocution from the operator simultaneously touching the equipment and the ground.
- The importance to the operator's safety of remaining inside the cab except where there is an imminent danger of fire, explosion, or other emergency that necessitates leaving the cab.
- The safest means of evacuating from equipment that may be energized.

- The danger of the potentially energized zone around the equipment (step potential).
- The need for crew in the area to avoid approaching or touching the equipment and the load.
- Safe clearance distance from power lines.
- Power lines are presumed to be energized unless the utility owner/operator confirms that the power line has been and continue to be deenergized and visibly grounded at the worksite.
- Power lines are presumed to be uninsulated unless the utility owner/operator or a registered engineer who is a qualified person with respect to electrical power transmission and distribution confirms that a line is insulated.
- The limitations of an insulating link/device, proximity alarm, and range control (and similar) device, if used.
- The procedures to be followed to properly ground equipment and the limitations of grounding.
- Employees working as dedicated spotters must be trained to enable them to effectively perform their task, including training on the applicable requirements of this section.

7.03 Training under this section must be administered in accordance with WAC 296-155-53409 Devices originally designed by the manufacturer for use as: A safety device (see WAC 296-155-53410), operational aid (see WAC 296-155-53412), or a means to prevent power line contact or electrocution, when used to comply with this section, must meet the manufacturer's procedures for use and conditions of use.6.

8.0 Power Line Safety (over 350kV – Equipment Operations)

8.01 The requirements of subsections (1) and (2) of this section apply to power lines over 350 kV, and below 1000 kV except that wherever the distance "20 feet" is specified, the distance "50 feet" must be substituted. For power lines at or below 1000 kV, wherever the distance “20 feet” is specified, the distance “50 feet” must be substituted: and

8.02 For power lines over 1000 kV, the minimum clearance distance must be established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution.

1. Power Line Safety (All Voltages) When Equipment Operations Closer than the Table A Zone
2. Equipment operations in which any part of the equipment, load line, or load (including rigging and lifting accessories) is closer than the minimum approach distance under Table A of OSHA 1926.1408 to an energized power line is prohibited, except where the employer demonstrates that all of the found in OSHA 1926.1410 are met.

9.0 Power Line Safety – While Traveling Under or Near Power Lines with No Load

9.01 This section establishes procedures and criteria that must be met for equipment traveling under or near a power line on a construction site with no load. Equipment traveling on a construction site with a load is governed by WAC 296-155-53408 and whichever is appropriate, and WAC 296-155-53400(35).

9.02 The employer must ensure that:

- The boom/mast and boom/mast support system are lowered sufficiently to meet the requirements of this paragraph.
- The clearances specified in Table 5 of this section are maintained.
- The effects of speed and terrain on equipment movement (including movement of the

boom/mast) are considered so that those effects do not cause the minimum clearance distances specified in Table 5 of this section to be breached.

- Dedicated spotter. If any part of the equipment while traveling will get closer than 20 feet to the power line, the employer must ensure that a dedicated spotter who is in continuous contact with the driver/operator is used. The dedicated spotter must:
- Be positioned to effectively gauge the clearance distance.
- Where necessary, use equipment that enables the dedicated spotter to communicate directly with the operator.
- Give timely information to the operator so that the required clearance distance can be maintained.
- Additional precautions for traveling in poor visibility. When traveling at night, or in conditions of poor visibility, in addition to the measures specified in paragraphs (B)(1) through (4) of this section, the employer must ensure that:
    1. The power lines are illuminated, or another means of identifying the location of the lines is used.
    2. A safe path of travel is identified and used.

Table 5 - Minimum Clearance Distance while Traveling with No Load

Voltage (nominal, kV, alternating current)	Minimum clearance distance (feet)
up to .75	4
over .75 to 50	6
over 50 to 345	10
over 345 to 750	16
over 750 to 1,000	20
over 1,000	As established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution.

10.0 Inspections

10.01 Site Supervisor is responsible for ensuring that proper inspections are completed. In addition, the site supervisor will ensure that all subcontractors responsible for any lifting operations on-site are informed of the requirements of this policy during the pre-construction meeting.

10.02 Modified equipment

- Equipment that has had modifications or additions which affect the safe operation of the equipment (such as modifications or additions involving a safety device or operational aid, critical part of a control system, power plant, braking system, load-sustaining structural components, load hook, or in-use operating mechanism) or capacity must be inspected by a qualified person after such modifications/additions have been completed, prior to initial use. The inspection must meet all of the following requirements:
- The inspection must assure that the modifications or additions have been done in accordance with the approval obtained pursuant to WAC Part L (Equipment modifications).
- The inspection must include functional testing of the equipment.

- Equipment must not be used until an inspection under this paragraph demonstrates that the requirements of paragraph WAC Part L of this section have been met.

10.03 Repaired/adjusted equipment. Equipment that has had a repair or adjustment that relates to safe operation (such as: a repair or adjustment to a safety device or operator aid, or to a critical part of a control system, power plant, braking system, load-sustaining structural components, load hook, or in-use operating mechanism), must be inspected by a qualified person after such a repair or adjustment has been completed, prior to initial use. The inspection must meet all requirements of DOSH Part L.

10.04 Post-assembly. Upon completion of assembly, the equipment must be inspected by a qualified person to assure that it is configured in accordance with manufacturer equipment criteria.

10.05 Each shift.

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

    1. Control mechanisms for maladjustments interfering with proper operation.
    2. Control and drive mechanisms for apparent excessive wear of components and contamination by lubricants, water or other foreign matter.
    3. Air, hydraulic, and other pressurized lines for deterioration or leakage, particularly those which flex in normal operation.
    4. Hydraulic system for proper fluid level.
    5. Hooks and latches for deformation, cracks, excessive wear, or damage such as from chemicals or heat.
    6. Wire rope reeving for compliance with the manufacturer's specifications.
    7. Wire rope, in accordance with WAC Part L.
    8. Electrical apparatus for malfunctioning, signs of apparent excessive deterioration, dirt or moisture accumulation.
    9. Tires (when in use) for proper inflation and condition.
    10. Ground conditions around the equipment for proper support, including ground settling under and around outriggers/stabilizers and supporting foundations, ground water accumulation, or similar conditions.
    11. The equipment for level position within the tolerances specified by the equipment manufacturer's recommendations, both before each shift and after each move and setup.
    12. Operator cab windows for significant cracks, breaks, or other deficiencies that would hamper the operator's view.
    13. Rails, rail stops, rail clamps and supporting surfaces when the equipment has rail traveling. Safety devices and operational aids for proper operation.

14. If any deficiency is identified, an immediate determination must be made by the competent person as to whether the deficiency constitutes a safety hazard. If the deficiency is determined to constitute a safety hazard, the equipment must be taken out of service until it has been corrected.
15. If any deficiency of safety devices/operational aids is identified, action must be taken prior to using the equipment or putting it back into service.

10.06 Monthly.

- Each month the equipment is in service it must be inspected in accordance with manufacturer's criteria.
- Equipment must not be used until an inspection under this paragraph demonstrates that no corrective action is required.

10.07 Documentation.

- The following information must be documented and maintained by the employer that conducts the inspection:
- The items checked and the results of the inspection.
- The name and signature of the person who conducted the inspection and the date.
- This document must be retained for a minimum of three months.
- Annual/comprehensive.
- At least every 12 months the equipment must be inspected by a qualified person.

10.08 In addition, at least every 12 months, the equipment must be inspected by a qualified person. Disassembly is required, as necessary, to complete the inspection. The equipment must be inspected for all of the following:

- Equipment structure (including the boom and, if equipped, the jib).
- Sheaves and drums for cracks or significant wear.
- Parts such as pins, bearings, shafts, gears, rollers and locking devices for distortion, cracks or significant wear.
- Brake and clutch system parts, linings, pawls and ratchets for excessive wear.
- Safety devices and operational aids for proper operation (including significant inaccuracies).
- Gasoline, diesel, electric, or other power plants for safety-related problems (such as leaking exhaust and emergency shut-down feature) and conditions, and proper operation.
- Chains and chain drive sprockets for excessive wear of sprockets and excessive chain stretch.
- Travel steering, brakes, and locking devices, for proper operation.
- Tires for damage or excessive wear.
- Hydraulic, pneumatic and other pressurized hoses, fittings and tubing.
- Hydraulic and pneumatic pumps and motors.
- Hydraulic and pneumatic valves.
- Hydraulic and pneumatic cylinders.

- Outrigger or stabilizer pads/floats for excessive wear or cracks.
- Slider pads for excessive wear or cracks
- Electrical components and wiring for cracked or split insulation and loose or corroded terminations.
- Warning labels and decals originally supplied with the equipment by the manufacturer or otherwise required under this standard: missing or unreadable.
- Originally equipped operator seat (or equivalent): missing.
- Operator seat: unserviceable.
- Originally equipped steps, ladders, handrails, guards: missing.
- Steps, ladders, handrails, guards: in unusable/unsafe condition.

10.09 This inspection must include functional testing to determine that the equipment as configured in the inspection is functioning properly.

10.010 If any deficiency is identified, an immediate determination must be made by the qualified person as to whether the deficiency constitutes a safety hazard or, though not yet a safety hazard, needs to be monitored in the monthly inspections.

10.011 If the qualified person determines that a deficiency is a safety hazard, the equipment must be taken out of service until it has been corrected, except when temporary alternative measures are implemented.

10.012 If the qualified person determines that, though not presently a safety hazard, the deficiency needs to be monitored, the employer must ensure that the deficiency is checked in the monthly inspections.

10.013 Documentation of annual/comprehensive inspection. The following information must be documented, maintained, and retained for a minimum of 12 months, by the employer that conducts the inspection:

- The items checked and the results of the inspection.
- The name and signature of the person who conducted the inspection and the date.

10.014 Severe service. Where the severity of use/conditions is such that there is a reasonable probability of damage or excessive wear (such as loading that may have exceeded rated capacity, shock loading that may have exceeded rated capacity, prolonged exposure to a corrosive atmosphere), the employer must stop using the equipment.

10.015 Equipment not in regular use. Equipment that has been idle for 3 months or more must be inspected by a qualified person in accordance with the requirements of a Monthly inspection before initial use.

10.016 Any part of a manufacturer’s procedures regarding inspections that relate to safe operation (such as to a safety device or operational aid, critical part of a control system, power plant, braking system, load-sustaining structural components, load hook, or in-use operating mechanism) that is more comprehensive or has a more frequent schedule of inspection than the requirements of this section must be followed.

10.017 All documents produced under this section must be available, during the applicable document retention period, to all persons who conduct inspections under this section.

11.0 Wire Rope – Inspection

11.01 Shift inspection.

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

11.02 Apparent deficiencies.

1. Category I. Apparent deficiencies in this category include the following:
   - Significant distortion of the wire rope structure such as kinking, crushing, unstranding, bird caging, signs of core failure or steel core protrusion between the outer strands.
   - Significant corrosion.
   - Electric arc damage (from a source other than power lines) or heat damage.
   - Improperly applied end connections.
   - Significantly corroded, cracked, bent, or worn end connections (such as from severe service).
2. Category II. Apparent deficiencies in this category are:
   - Visible broken wires, as follows:

WAC Table 1 Wire Rope Inspection/ Removal Criteria						
Category of Crane Type	Running Ropes # of broken wires in		Rotation Resistant # of broken wires in		Standing Ropes # of broken wires	
	1 rope lay	1 strand in 1 lay	Specified diameters		In 1 lay beyond end connection	At end of connection
Mobile	6	3	2(in 6xd)	4 (in30xd)	3	2
Articulating	6	3	Consult rope mfg.	Consult rope mfg.	3	2
Tower	12	4	2(in 6xd)	4 (in30xd)	3	3
Self-Erector	6	3	2(in 6xd)	4 (in30xd)	3	2
Derricks	6	3	Consult rope mfg.	Consult rope mfg.	3	2

* Also remove if you detect 1 wire broken at the contact point with the core or adjacent strand or evidence from any heat damage from any cause.

Note: xd means times the “diameter.”

3. Category III. Apparent deficiencies in this category include the following:
   - In rotation resistant wire rope, core protrusion or other distortion indicating core failure.
   - Prior electrical contact with a power line.
   - A broken strand.
4. Critical review items. The competent person must give particular attention to all of the following:

- Rotation resistant wire rope in use.
- Wire rope being used for boom hoists and luffing hoists, particularly at reverse bends.
- Wire rope at flange points, crossover points and repetitive pickup points on drums.
- Wire rope at or near terminal ends.
- Wire rope in contact with saddles, equalizer sheaves or other sheaves where rope travel is limited.

11.03 Removal from service. If a deficiency is identified, procedures detailed in OSHA 1926.1413 (a)(4) must be followed.

11.04 Monthly inspection.

- Each month an inspection must be conducted in accordance with the shift inspection of this section.
- The inspection must include any deficiencies that the qualified person who conducts the annual inspection determines under paragraph (C)(3)(b) of this section must be monitored.

11.05 Wire ropes on equipment must not be used until an inspection under this paragraph demonstrates that no corrective action under paragraph (A)(4) of this section is required.

11.06 All monthly inspections are to be documented

11.07 Annual/comprehensive. At least every 12 months, wire ropes in use on equipment must be inspected by a qualified person.

11.08 Rope lubricants that are of the type that hinder inspection must not be used.

11.09 All documents produced under this section must be available, during the applicable document retention period, to all persons who conduct inspections under this section.

12.0 Safety Devices

12.01 Safety devices. The following safety devices are required on all equipment covered by this subpart, unless otherwise specified:

1. Crane level indicator.
   - The equipment must have a crane level indicator that is either built into the equipment or is available on the equipment.
   - If a built-in crane level indicator is not working properly, it must be tagged-out or removed. If a removable crane level indicator is not working properly, it must be removed.
2. Boom stops, except for derricks and hydraulic booms.
3. Jib stops (if a jib is attached), except for derricks.
4. Equipment with foot pedal brakes must have locks.
5. Hydraulic outrigger jacks and hydraulic stabilizer jacks must have an integral holding device/check valve.
6. Horn
   - The equipment must have a horn that is either built into the equipment or is on the equipment and immediately available to the operator.
   - If a built-in horn is not working properly, it must be tagged-out or removed. If a removable horn is not working properly, it must be removed.

12.02 Proper operation required. Operations must not begin unless all of the devices listed in this section are in proper working order. If a device stops working properly during operations, the operator must safely stop operations. If any of the devices listed in this section are not in proper working order, the equipment must be taken out of service and operations must not resume until the device is again working properly.

13.0 Operational Aids

13.01 The devices listed in this section ("listed operational aids") are required on all equipment covered by this subpart, unless otherwise specified.

13.02 Operations must not begin unless the listed operational aids are in proper working order. For more information on repair and temporary requirements see WAC Part L.

13.03 If a listed operational aid stops working properly during operations, the operator must safely stop operations until the temporary alternative measures are implemented, or the device is again working properly.

1. Category I operational aids

    - Boom hoist limiting device.
    - Luffing jib limiting device. Equipment with a luffing jib must have a luffing jib limiting device.
    - Anti two-blocking device.

13.04 Telescopic boom cranes manufactured after February 28, 1992, must be equipped with a device which automatically prevents damage from contact between the load block, overhaul ball, or similar component, and the boom tip (or fixed upper block or similar component). The device(s) must prevent such damage at all points where two-blocking could occur.

13.05 Lattice boom cranes manufactured after Feb 28, 1992, must be equipped with a device that either automatically prevents damage and load failure from contact between the load block, overhaul ball, or similar component, and the boom tip (or fixed upper block or similar component), or warns the operator in time for the operator to prevent two-blocking. The device must prevent such damage/failure or provide adequate warning for all points where two-blocking could occur. On those manufactured after November 9, 2011 the device(s) must prevent such damage/failure at all points where two-blocking could occur.

13.06 Articulating cranes manufactured after December 31, 1999, that are equipped with a load hoist must be equipped with a device that automatically prevents damage from contact between the load block, overhaul ball, or similar component, and the boom tip (or fixed upper block or similar component). The device must prevent such damage at all points where two-blocking could occur.

13.07 Category II operational aids and alternative measures.

1. Boom angle or radius indicator. The equipment must have a boom angle or radius indicator readable from the operator's station.
2. Jib angle indicator if the equipment has a luffing jib.
3. Boom length indicator if the equipment has a telescopic boom, except where the rated capacity is independent of the boom length.
4. Load weighing and similar devices.

13.08 Equipment (other than derricks and articulating cranes) manufactured after March 29, 2003 with a rated capacity over 6,000 pounds must have at least one of the following:

- Load weighing device

- Load moment (or rated capacity) indicator, or
- Load moment (or rated capacity) limiter.
- Articulating cranes manufactured after November 9, 2011 must have at least one of the following:
- automatic overload prevention device, load weighing device,
- Load moment (or rated capacity) indicator, or
- Load moment (rated capacity) limiter.

13.09 The following devices are required on equipment manufactured after November 9, 2011:

- Outrigger/stabilizer position (horizontal beam extension) sensor/monitor if the equipment has outriggers or stabilizers.
- Hoist drum rotation indicator if the equipment has a hoist drum not visible from the operator's station.

14.0 Operation

14.01 The employer must comply with all manufacturer procedures applicable to the operational functions of equipment, including its use with attachments.

14.02 Unavailable operation procedures.

- Where the manufacturer procedures are unavailable, the employer must develop and ensure compliance with all procedures necessary for the safe operation of the equipment and attachments.

14.03 Procedures for the operational controls must be developed by a qualified person.

14.04 Procedures related to the capacity of the equipment must be developed and signed by a registered professional engineer familiar with the equipment.

14.05 Accessibility of procedures.

- The procedures applicable to the operation of the equipment, including rated capacities (load charts), recommended operating speeds, special hazard warnings, instructions, and operator's manual, must be readily available in the cab at all times for use by the operator.
- Where rated capacities are available in the cab only in electronic form: in the event of a failure which makes the rated capacities inaccessible, the operator must immediately cease operations or follow safe shut-down procedures until the rated capacities (in electronic or other form) are available.
- The operator must not engage in any practice or activity that diverts his/her attention while actually engaged in operating the equipment, such as the use of cellular phones (other than when used for signal communications).

14.01 Leaving the equipment unattended.

1. The operator must not leave the controls while the load is suspended, except where all of the following are met:
   - The operator remains adjacent to the equipment and is not engaged in any other duties.
   - The load is to be held suspended for a period of time exceeding normal lifting operations.

- The competent person determines that it is safe to do so and implements measures necessary to restrain the boom hoist and telescoping, load, swing, and outrigger or stabilizer functions.
- Barricades or caution lines, and notices, are erected to prevent all employees from entering the fall zone. No employees, including qualified rigger and/or signal person are permitted in the fall zone.
- The above provisions do not apply to working gear (such as slings, spreader bars, ladders, and welding machines) where the weight of the working gear is negligible relative to the lifting capacity of the equipment as positioned, and the working gear is suspended over an area other than an entrance or exit.

14.02 Tag-out.

- Tagging out of service equipment/functions. Where the employer has taken the equipment out of service, a tag must be placed in the cab stating that the equipment is out of service and is not to be used. Where the employer has taken a function(s) out of service, a tag must be placed in a conspicuous position stating that the function is out of service and is not to be used.

14.03 Response to “do not operate”/ tag-out signs.

- If there is a warning (tag-out or maintenance/do not operate) sign on the equipment or starting control, the operator must not activate the switch or start the equipment until the sign has been removed by a person authorized to remove it, or until the operator has verified that:
    - No one is servicing, working on, or otherwise in a dangerous position on the machine.
    - The equipment has been repaired and is working properly.

14.04 If there is a warning (tag-out or maintenance/do not operate) sign on any other switch or control, the operator must not activate that switch or control until the sign has been removed by a person authorized to remove it.

14.05 Before starting the engine, the operator must verify that all controls are in the proper starting position and that all personnel are in the clear.

14.06 Storm warning. When a local storm warning has been issued, the competent person must determine whether it is necessary to implement manufacturer recommendations for securing the equipment.

14.07 If equipment adjustments or repairs are necessary:

- The operator must, in writing, promptly inform the person designated by the employer to receive such information and, where there are successive shifts, to the next operator; and
- The employer must notify all affected employees, at the beginning of each shift, of the necessary adjustments or repairs and all alternative measures.
- Safety devices and operational aids must not be used as a substitute for the exercise of professional judgment by the operator.
- If the competent person determines that there is a slack rope condition requiring re-spooling of the rope, it must be verified (before starting to lift) that the rope is seated on the drum and in the sheaves as the slack is removed.
- The competent person must adjust the equipment and/or operations to address the effect of wind, ice, and snow on equipment stability and rated capacity.

14.08 Compliance with rated capacity.

1. The equipment must not be operated in excess of its rated capacity.

2. The operator must not be required to operate the equipment in a manner that would violate paragraph (o)(1) of this section.

14.09 Load weight. The operator must verify that the load is within the rated capacity of the equipment by at least one of the following methods:

1. The weight of the load must be determined from a source recognized by the industry (such as the load's manufacturer), or by a calculation method recognized by the industry (such as calculating a steel beam from measured dimensions and a known per foot weight), or by other equally reliable means. In addition, when requested by the operator, this information must be provided to the operator prior to the lift; or
2. The operator uses a load weighing device, load moment indicator, rated capacity indicator, or rated capacity limiter. If it exceeds 75 percent of the maximum rated capacity at the longest radius that will be used during the lift operation, the operator must not proceed with the lift until the entire lift is determined safe and the plan is reviewed as a critical lift. See Definitions.
3. The boom or other parts of the equipment must not contact any obstruction.
4. The equipment must not be used to drag or pull loads sideways.
5. On wheel-mounted equipment, no loads must be lifted over the front area, except as permitted by the manufacturer.
6. The operator must test the brakes each time a load that is 90% or more of the maximum line pull is handled by lifting the load a few inches and applying the brakes. In duty cycle and repetitive lifts where each lift is 90% or more of the maximum line pull, this requirement applies to the first lift but not to successive lifts.
7. Neither the load nor the boom must be lowered below the point where less than two full wraps of rope remain on their respective drums.

14.010 Traveling with a load.

14.011 Traveling with a load is prohibited if the practice is prohibited by the manufacturer.

14.012 Al loads must be in front of machine in a "locked" position, typically 6^0 from center each way.

14.013 Where traveling with a load, the employer must ensure that:

- A competent person supervises the operation, determines if it is necessary to reduce rated capacity, and makes determinations regarding load position, boom location, ground support, travel route, overhead obstructions, and speed of movement necessary to ensure safety.
- For equipment with tires, tire pressure specified by the manufacturer is maintained.
- Rotational speed of the equipment must be such that the load does not swing out beyond the radius at which it can be controlled.
- A tag or restraint line must be used if rotation of the load would be hazardous.
- The brakes must be adjusted in accordance with manufacturer procedures to prevent unintended movement.
- The operator must obey a stop (or emergency stop) signal, irrespective of who gives it.

14.014 Swinging locomotive cranes. A locomotive crane must not be swung into a position where railway cars on an adjacent track could strike it, until it is determined that cars are not being moved on the adjacent track and that proper flag protection has been established.

14.015 Counterweight/ballast. The following applies to equipment other than tower cranes:

- Equipment must not be operated without the counterweight or ballast in place as specified by the

manufacturer.

- The maximum counterweight or ballast specified by the manufacturer for the equipment must not be exceeded.
- Counterweight/ballast requirements for tower cranes are specified in WAC Part L.

1. Authority to Stop

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

14.016 Signals – General Requirements

- A signal person must be provided in each of the following situations:
- The point of operation, meaning the load travel or the area near or at load placement, is not in full view of the operator.
- When the equipment is traveling, the view in the direction of travel is obstructed.
- Due to site specific safety concerns, either the operator or the person handling the load determines that it is necessary.
- Types of signals. Signals to operators must be by hand, voice, audible, or new signals.

14.017 Hand signals.

- When using hand signals, the Standard Method must be used. Exception: Where use of the Standard Method for hand signals is infeasible, or where an operation or use of an attachment is not covered in the Standard Method, non-standard hand signals may be used in accordance with paragraph (C)(2) of this section.
- Non-standard hand signals. When using non-standard hand signals, the signal person, operator, and lift director (where there is one) must contact each other prior to the operation and agree on the non-standard hand signals that will be used.
- New signals. Signals other than hand, voice, or audible signals may be used where the employer demonstrates that:
- The new signals provide at least equally effective communication as voice, audible, or Standard Method hand signals, or
- The new signals comply with a national consensus standard that provides at least equally effective communication as voice, audible, or Standard Method hand signals.

14.018 Suitability.

- The signals used (hand, voice, audible, or new), and means of transmitting the signals to the operator (such as direct line of sight, video, radio, etc.), must be appropriate for the site conditions.
- During operations requiring signals, the ability to transmit signals between the operator and signal person must be maintained. If that ability is interrupted at any time, the operator must safely stop operations requiring signals until it is reestablished, and a proper signal is given and understood.
- If the operator becomes aware of a safety problem and needs to communicate with the signal person, the operator must safely stop operations. Operations must not resume until the

operator and signal person agree that the problem has been resolved.

- Only one person may give signals to a crane/derrick at a time, except in circumstances covered by paragraph (j) of this section.
- Anyone who becomes aware of a safety problem must alert the operator or signal person by giving the stop or emergency stop signal.
- All directions given to the operator by the signal person must be given from the operator's direction perspective.

14.019 Communication with multiple cranes/derricks. Where a signal person(s) is in communication with more than one crane/derrick, a system must be used for identifying the crane/derrick each signal is for, as follows:

- For each signal, prior to giving the function/direction, the signal person must identify the crane/derrick the signal is for, or
- Must use an equally effective method of identifying which crane/derrick the signal is for.

15.0 Signals - Radio, Telephone, or other electronic transmission

- The device(s) used to transmit signals must be tested on site before beginning operations to ensure that the signal transmission is effective, clear, and reliable.
- Signal transmission must be through a dedicated channel, except:
- Multiple cranes/derricks and one or more signal persons may share a dedicated channel for the purpose of coordinating operations.
- Where a crane is being operated on or adjacent to railroad tracks, and the actions of the crane operator need to be coordinated with the movement of other equipment or trains on the same or adjacent tracks.
- The operator's reception of signals must be by a hands-free system.

16.0 Signals – Voice Signals – additional requirements

- Prior to beginning operations, the operator, signal person and lift director (if there is one), must contact each other and agree on the voice signals that will be used. Once the voice signals are agreed upon, these workers need not meet again to discuss voice signals unless another worker is added or substituted, there is confusion about the voice signals, or a voice signal is to be changed.
- Each voice signal must contain the following three elements, given in the following order: function (such as hoist, boom, etc.), direction; distance and/or speed; function, stop command.
- The operator, signal person and lift director (if there is one), must be able to effectively communicate in the language used.

17.0 Hand Signal Chart

- Hand signal charts must be either posted on the equipment or conspicuously posted in the vicinity of the hoisting operations.

18.0 Fall Protection

18.01 Boom walkways (all equipment covered by this subpart except tower cranes)

18.02 Equipment manufactured after November 9, 2011 with lattice booms must be equipped with walkways on the boom(s) if the vertical profile of the boom (from cord centerline to cord centerline) is 6 or more feet.

18.03 Boom walkway criteria.

1. The walkways must be at least 12 inches wide.
2. Guardrails, railings and other permanent fall protection attachments along walkways are:

    - Not required.
    - Prohibited on booms supported by pendant ropes or bars if the guardrails/railings/attachments could be snagged by the ropes or bars.
    - Prohibited if of the removable type (designed to be installed and removed each time the boom is assembled/disassembled).

18.04 Where not prohibited, guardrails or railings may be of any height up to, but not more than, 45 inches.

18.05 Steps, handholds, ladders, grab rails, guardrails and railings.

- The employer must maintain in good condition originally-equipped steps, handholds, ladders and guardrails/railings/grab rails.

18.06 All equipment covered by this subpart except tower cranes. Equipment manufactured after November 9, 2011 must be equipped so as to provide safe access and egress between the ground and the operator work station(s), including the forward and rear positions, by the provision of devices such as steps, handholds, ladders, and guardrails/railings/grab rails.

18.07 Tower cranes manufactured after November 9, 2011 must be equipped so as to provide safe access and egress between the ground and the cab, machinery platforms, and tower (mast), by the provision of devices such as steps, handholds, ladders, and guardrails/railings/grab rails.

18.08 Full body harnesses must be used in personal fall arrest and fall restraint systems. Ideally restrain systems are to be used.

18.09 All equipment covered by this subpart except tower cranes. For non-assembly/ disassembly work, the employer must provide and ensure the use of fall protection equipment for employees who are on a walking/working surface with an unprotected side or edge more than 6 feet above a lower level as follows:

18.010 When moving point-to-point:

- On non-lattice booms (whether horizontal or not horizontal).
- On lattice booms that are not horizontal.
- On horizontal lattice booms where the fall distances is 15 feet or more.
- While at a work station on any part of the equipment (including the boom, of any type), except when the employee is at or near draw-works (when the equipment is running), in the cab, or on the deck.
- All equipment covered by this subpart except tower cranes. For assembly/disassembly work, the employer must provide and ensure the use of fall protection equipment for employees who are on a walking/working surface with an unprotected side or edge more than 10 feet above a lower level, except when the employee is at or near draw-works (when the equipment is running), in the

cab, or on the deck.

18.011 Anchorage criteria.

- Anchorages for personal fall arrest and positioning device systems.
- Personal fall arrest systems must be anchored to any apparently substantial part of the equipment that a competent person would deem sufficient to withstand 5000 lbs.
- Positioning device systems must be anchored to any apparently substantial part of the equipment that a competent person would deem sufficient to withstand 3000lbs.
- All anchorages used for fall protection must be certified for that purpose.
- Anchorages for fall restraint systems. Fall restraint systems must be anchored to any part of the equipment that is capable of withstanding 1000lbs as determined by a competent person.

18.012 Tower cranes.

- For work other than erecting, climbing, and dismantling, the employer must provide and ensure the use of fall protection equipment for employees who are on a walking/working surface with an unprotected side or edge more than 4 feet above a lower level, except when the employee is at or near draw-works (when the equipment is running), in the cab, or on the deck.
- For erecting, climbing, and dismantling work, the employer must provide and ensure the use of fall protection equipment for employees who are on a walking/working surface with an unprotected side or edge more than 10 feet above a lower level.
- Anchoring to the load line. A personal fall arrest system is permitted to be anchored to the crane/derrick's hook (or other part of the load line) where all of the following requirements are met:
- A qualified person has determined that the set-up and rated capacity of the crane/derrick (including the hook, load line and rigging) meets or exceeds the requirements in fall protection requirements.
- The equipment operator must be at the work site and informed that the equipment is being used for this purpose.
- No load is suspended from the load line when the personal fall arrest system is anchored to the crane/derrick's hook (or other part of the load line).

18.013 Training. The employer must train each employee who may be exposed to fall hazards while on, or hoisted by, equipment covered by this subpart on all of the following:

- The requirements in this subpart that address fall protection.
- The applicable requirements in OSHA or WISHA.

19.0 Work Area Control

20.01 Swing radius hazards.

20.02 The requirements of this section apply where there are accessible areas in which the equipment's rotating superstructure (whether permanently or temporarily mounted) poses a reasonably foreseeable risk of:

- Striking and injuring an employee; or
- Pinching/crushing an employee against another part of the equipment or another object.

20.03 To prevent employees from entering these hazard areas, the employer must:

- Train each employee assigned to work on or near the equipment (“authorized personnel”) in how to recognize struck-by and pinch/crush hazard areas posed by the rotating superstructure.
- Erect and maintain control lines, warning lines, railings or similar barriers to mark the boundaries of the hazard areas. Exception: When the employer can demonstrate that it is neither feasible to erect such barriers on the ground nor on the equipment, the hazard areas must be clearly marked by a combination of warning signs (such as “Danger – Swing/Crush Zone”) and high visibility markings on the equipment that identify the hazard areas. In addition, the employer must train each employee to understand what these markings signify.

20.04 Protecting employees in the hazard area.

- Before an employee goes to a location in the hazard area that is out of view of the operator, the employee (or someone instructed by the employee) must ensure that the operator is informed that he/she is going to that location.
- Where the operator knows that an employee went to a location covered by this section, the operator must not rotate the superstructure until the operator is informed in accordance with a prearranged system of communication that the employee is in a safe position.
- Where any part of a crane/derrick is within the working radius of another crane/derrick, the controlling entity must institute a system to coordinate operations. If there is no controlling entity, the employer (if there is only one employer operating the multiple pieces of equipment), or employers, must institute such a system.

20.0 Keeping Clear of the Load

20.01 Where available, hoisting routes that minimize the exposure of employees to hoisted loads must be used, to the extent consistent with public safety.

20.02 While the operator is not moving a suspended load, no employee must be within the fall zone, except for employees:

- Engaged in hooking, unhooking or guiding a load;
- Engaged in the initial attachment of the load to a component or structure; or
- Operating a concrete hopper or concrete bucket.

21.03 When employees are engaged in hooking, unhooking, or guiding the load, or in the initial connection of a load to a component or structure and are within the fall zone, all of the following criteria must be met:

- The materials being hoisted must be rigged to prevent unintentional displacement.
- Hooks with self-closing latches or their equivalent must be used. Any miscellaneous hooks that do not require latches, must be used in accordance with manufacturer’s intended use.
- The materials must be rigged by a qualified rigger.
- Receiving a load. Only employees needed to receive a load are permitted to be within the fall zone when a load is being landed.

21.04 During a tilt-up or tilt-down operation:

- No employee must be directly under the load.
- Only employees essential to the operation are permitted in the fall zone (but not directly under the load). An employee is essential to the operation if the employee is conducting one of the following operations and the employer can demonstrate it is infeasible for the employee to perform that operation from outside the fall zone: (1) physically guide the load; (2) closely monitor and give

instructions regarding the load's movement; or (3) either detach it from or initially attach it to another component or structure (such as, but not limited to, making an initial connection or installing bracing).

- NOTE: Boom free fall is prohibited when an employee is in the fall zone of the boom or load, and load line free fall is prohibited when an employee is directly under the load; see WAC Part L.

21.0 Free Fall and Controlled Lowering

21.01 Boom free fall prohibitions.

- The use of equipment in which the boom is designed to free fall (live boom) is prohibited in each of the following circumstances:
- An employee is in the fall zone of the boom or load.
- An employee is being hoisted.
- The load or boom is directly over a power line, or over any part of the area extending the Table 4 located in WAC 296-155-53408, clearance distance to each side of the power line; or any part of the area extending the Table 4 clearance distance to each side of the power line is within the radius of vertical travel of the boom or the load.
- The load is over a shaft, except where there are no employees in the shaft.
- The load is over a cofferdam, except where there are no employees in the fall zone of the boom or the load.

21.02 Lifting operations are taking place in a refinery or tank farm.

21.03 The use of equipment in which the boom is designed to free fall (live boom) is permitted only where none of the circumstances listed in this section are present and:

21.04 The equipment was manufactured prior to October 31, 1984; or

21.05 The equipment is a floating crane/derrick or a land crane/derrick on a vessel/flotation device.

21.06 Preventing boom free fall. Where the use of equipment with a boom that is designed to free fall (live boom) is prohibited, the boom hoist must have a secondary mechanism or device designed to prevent the boom from falling in the event the primary system used to hold or regulate the boom hoist fails, as follows:

- Friction drums must have:
  1 A friction clutch and, in addition, a braking device, to allow for controlled boom lowering.
  2 A secondary braking or locking device, which is manually or automatically engaged, to back-up the primary brake while the boom is held (such as a secondary friction brake or a ratchet and pawl device).
- Hydraulic drums must have an integrally mounted holding device or internal static brake to prevent boom hoist movement in the event of hydraulic failure.

21.03 Neither clutches nor hydraulic motors must be considered brake or locking devices for purposes of this subpart.

21.04 Hydraulic boom cylinders must have an integrally mounted holding device.

21.05 Preventing uncontrolled retraction. Hydraulic telescoping booms must have an integrally mounted holding device to prevent the boom from retracting in the event of hydraulic failure.

21.06 Load line free fall. In each of the following circumstances, controlled load lowering is required, and free fall of the load line hoist is prohibited:

- An employee is directly under the load.
- An employee is being hoisted.
- The load is directly over a power line, or over any part of the area extending the Table 4 of WAC 296-155-53408 clearance distance to each side of the power line; or any part of the area extending the Table 4 clearance distance to each side of the power line is within the radius of vertical travel of the load.
- The load is over a shaft.
- The load is over a cofferdam, except where there are no employees in the fall zone of the load.

22.0 Training

22.01 The employer will provide training as follows:

- Overhead power lines clearance rules as specified in WAC Crane rules.
- Competent persons and qualified persons. The employer will train each competent person and each qualified person regarding the requirements of this subpart applicable to their respective roles.
- Crush/pinch points. The employer must train each employee who works with the equipment to keep clear of holes, and crush/pinch points and the hazards.
- Tag-out. The employer must train each operator and each additional employee authorized to start/energize equipment or operate equipment controls (such as maintenance and repair employees), in the tag-out and start-up procedures.

22.02 Training administration.

- The employer must evaluate each employee required to be trained under this subpart to confirm that the employee understands the information provided in the training.
- The employer must provide refresher training in relevant topics for each employee when, based on the conduct of the employee or an evaluation of the employee's knowledge, there is an indication that retraining is necessary.
- Whenever training is required under subpart CC, the employer must provide the training at no cost to the employee.

23.0 Hoisting Personnel

23.01 The requirements of this section are supplemental to the other requirements in this subpart and apply when one or more employees are hoisted. The use of equipment to hoist employees is prohibited except where the employer demonstrates that the erection, use, and dismantling of conventional means of reaching the work area, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform, or scaffold, would be more hazardous, or is not possible because of the project's structural design or worksite conditions.

24.0 Special Permits

24.01 Permits are required when lifting operations involve one of the following:

- Multiple Crane Lifts
- Multiple load line lifts
- Lifting Personnel
- Pick and Carry operations
- Loads are picked using a sling/basket configuration

25.0 Plan development

25.01 Before beginning a crane/derrick operation in which more than one crane/derrick will be supporting the load, the operation must be planned. The planning must meet the following requirements:

- The plan must be developed by a qualified person.
- The plan must be designed to ensure that the requirements of this subpart are met.
- Where the qualified person determines that engineering expertise is needed for the planning, the employer must ensure that it is provided.

25.02 Plan implementation

- The multiple-crane/derrick lift must be directed by a person who meets the criteria for both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons (lift director).
- The lift director must review the plan in a meeting with all workers who will be involved with the operation.

26.0 Tower Cranes

This section contains supplemental requirements for tower cranes; all sections of this subpart apply to tower cranes unless specified otherwise.

26.01 Erecting, climbing and dismantling. Dangerous areas (self-erecting tower cranes). In addition to the requirements in WAC, for self-erecting tower cranes, the following applies: Employees must not be in or under the tower, jib, or rotating portion of the crane during erecting, climbing and dismantling operations until the crane is secured in a locked position and the competent person in charge indicates it is safe to enter this area, unless the manufacturer's instructions direct otherwise and only the necessary personnel are permitted in this area.

26.02 Foundations and structural supports. Tower crane foundations and structural supports (including both the portions of the structure used for support and the means of attachment) must be designed by the manufacturer or a registered professional engineer.

26.03 In addition, the A/D director must address the following:

- Foundations and structural supports. The A/D director must determine that tower crane foundations and structural supports are installed in accordance with their design.
- Loss of backward stability. Backward stability before swinging self-erecting cranes or cranes on traveling or static undercarriages.

- Wind speed. Wind must not exceed the speed recommended by the manufacturer or, where manufacturer does not specify this information, the speed determined by a qualified person.
- Plumb tolerance. Towers must be erected plumb to the manufacturer's tolerance and verified by a qualified person. Where the manufacturer does not specify plumb tolerance, the crane tower must be plumb to a tolerance of at least 1:500 (approximately 1 inch in 40 feet).
- Multiple tower crane jobsites. On jobsites where more than one fixed jib (hammerhead) tower crane is installed, the cranes must be located such that no crane can come in contact with the structure of another crane. Cranes are permitted to pass over one another.
- Climbing procedures. Prior to, and during, all climbing procedures (including inside climbing and top climbing), the employer must:
    a. Comply with all manufacturer prohibitions.
    b. Have a registered professional engineer verify that the host structure is strong enough to sustain the forces imposed through the braces, brace anchorages and supporting floors.
- Counterweight/ballast. Equipment must not be erected, dismantled or operated without the amount and position of counterweight and/or ballast in place as specified by the manufacturer or a registered professional engineer familiar with the equipment.
- The maximum counterweight and/or ballast specified by the manufacturer or registered professional engineer familiar with the equipment must not be exceeded.
- Signs. The size and location of signs installed on tower cranes must be in accordance with manufacturer specifications. Where these are unavailable, a registered professional engineer familiar with the type of equipment involved must approve in writing the size and location of any signs.
- Safety devices
    a. The following safety devices are required on all tower cranes unless otherwise specified:
    b. Boom stops on luffing boom type tower cranes.
    c. Jib stops on luffing boom type tower cranes if equipped with a jib attachment.
    d. Travel rail end stops at both ends of travel rail.
    e. Travel rail clamps on all travel bogies.
    f. Integrally mounted check valves on all load supporting hydraulic cylinders.
    g. Hydraulic system pressure limiting device.

26.04 The following brakes, which must automatically set in the event of pressure loss or power failure, are required:

- A hoist brake on all hoists.
- Swing brake.
- Trolley brake.
- Rail travel brake.
- Dead man control or forced neutral return control (hand) levers.
- Emergency stop switch at the operator's station.

26.05 Trolley end stops must be provided at both ends of travel of the trolley.

Proper operation required. Operations must not begin unless the devices listed in this section are in proper working order. If a device stops working properly during operations, the operator must safely stop operations. The equipment must be taken out of service, and operations must not resume until the device is again working properly Operational aids.

26.06 The devices listed in this section ("operational aids") are required on all tower cranes covered by this subpart, unless otherwise specified.

26.07 Operations must not begin unless the operational aids are in proper working order, except where the employer meets the specified temporary alternative measures. More protective alternative measures specified by the tower crane manufacturer, if any, must be followed. See WAC Part L for additional requirements.

26.08 If an operational aid stops working properly during operations, the operator must safely stop operations until the temporary alternative measures are implemented or the device is again working properly. If a replacement part is no longer available, the use of a substitute device that performs the same type of function is permitted.

26.09 Category I operational aids and alternative measures. Operational aids listed in this paragraph that are not working properly must be repaired no later than 7 calendar days after the deficiency occurs. Exception: If the employer documents that it has ordered the necessary parts within 7 calendar days of the occurrence of the deficiency, the repair must be completed within 7 calendar days of receipt of the parts.

26.010 Trolley travel limiting device. The travel of the trolley must be restricted at both ends of the jib by a trolley travel limiting device to prevent the trolley from running into the trolley end stops. Temporary alternative measures:

- Option A. The trolley rope must be marked (so it can be seen by the operator) at a point that will give the operator sufficient time to stop the trolley prior to the end stops.
- Option B. A spotter who is in direct communication with the operator must be used when operations are conducted within 10 feet of the outer or inner trolley end stops.

26.011 Boom hoist limiting device. The range of the boom must be limited at the minimum and maximum radius. Temporary alternative measures: Clearly mark the cable (so it can be seen by the operator) at a point that will give the operator sufficient time to stop the boom hoist within the minimum and maximum boom radius, or use a spotter who is in direct communication with the operator to inform the operator when this point is reached.

26.012 Anti two-blocking device. The tower crane must be equipped with a device which automatically prevents damage from contact between the load block, overhaul ball, or similar component, and the boom tip (or fixed upper block or similar component). The device(s) must prevent such damage at all points where two-blocking could occur. Temporary alternative measures: Clearly mark the cable (so it can be seen by the operator) at a point that will give the operator sufficient time to stop the hoist to prevent two-blocking, or use a spotter who is in direct communication with the operator to inform the operator when this point is reached.

26.013 Hoist drum lower limiting device. Tower cranes manufactured after November 9, 2011 must be equipped with a device that prevents the last 2 wraps of hoist cable from being spooled off the drum. Temporary alternative measures: Mark the cable (so it can be seen by the operator) at a point that will give the operator sufficient time to stop the hoist prior to last 2 wraps of hoist cable being spooled off the drum, or use a spotter who is in direct communication with the operator to inform the operator when this point is reached.

26.014 Load moment limiting device. The tower crane must have a device that prevents moment overloading. Temporary alternative measures: A radius indicating device must be used (if the tower crane is not equipped with a radius indicating device, the radius must be measured to ensure the load is within the rated capacity of the crane). In addition, the weight of the load must

be determined from a source recognized by the industry (such as the load's manufacturer), or by a calculation method recognized by the industry (such as calculating a steel beam from measured dimensions and a known per foot weight), or by other equally reliable means. This information must be provided to the operator prior to the lift.

26.015 Hoist line pull limiting device. The capacity of the hoist must be limited to prevent overloading, including each individual gear ratio if equipped with a multiple speed hoist transmission. Temporary alternative measures: The operator must ensure that the weight of the load does not exceed the capacity of the hoist (including for each individual gear ratio if equipped with a multiple speed hoist transmission).

26.016 Rail travel limiting device. The travel distance in each direction must be limited to prevent the travel bogies from running into the end stops or buffers. Temporary alternative measures: A spotter who is in direct communication with the operator must be used when operations are conducted within 10 feet of either end of the travel rail end stops; the spotter must inform the operator of the distance of the travel bogies from the end stops or buffers.

26.017 Boom hoist drum positive locking device and control. The boom hoist drum must be equipped with a control that will enable the operator to positively lock the boom hoist drum from the cab. Temporary alternative measures: The device must be manually set when required if an electric, hydraulic or automatic control is not functioning.

26.018 Category II operational aids and alternative measures. Operational aids listed in this paragraph that are not working properly must be repaired no later than 30 calendar days after the deficiency occurs. Exception: If the employer documents that it has ordered the necessary parts within 7 calendar days of the occurrence of the deficiency, and the part are not received in time to complete the repair in 30 calendar days, the repair must be completed within 7 calendar days of receipt of the parts.

26.019 Boom angle or hook radius indicator.

26.020 Luffing boom tower cranes must have a boom angle indicator readable from the operator's station.

26.021 Hammerhead tower cranes manufactured after November 9, 2011must have a hook radius indicator readable from the operator's station.

26.022 Temporary alternative measures: Hook radii or boom angle must be determined by measuring the hook radii or boom angle with a measuring device.

26.023 Trolley travel deceleration device. The trolley speed must be automatically reduced prior to the trolley reaching the end limit in both directions. Temporary alternative measure: The employer must post a notice in the cab of the crane notifying the operator that the trolley travel deceleration device is malfunctioning and instructing the operator to take special care to reduce the trolley speed when approaching the trolley end limits.

26.024 Boom hoist deceleration device. The boom speed must be automatically reduced prior to the boom reaching the minimum or maximum radius limit. Temporary alternative measure: The employer must post a notice in the cab of the crane notifying the operator that the boom hoist deceleration device is malfunctioning and instructing the operator to take special care to reduce the boom speed when approaching the minimum or maximum radius limits.

26.025 Load hoist deceleration device. The load speed must be automatically reduced prior to the hoist reaching the upper limit. Temporary alternative measure: The employer must post a notice in the cab of the crane notifying the operator that the load hoist deceleration device is malfunctioning and instructing the operator to take special care to reduce the load speed when approaching the upper limits.

26.026 Wind speed indicator. A device must be provided to display the wind speed and must be mounted above the upper rotating structure on tower cranes. On self-erecting cranes, it must be mounted at or above the jib level. Temporary alternative measures: Use of wind speed information from a properly functioning indicating device on another tower crane on the same site, or a qualified person estimates the wind speed.

26.027 Load indicating device. Cranes manufactured after November 9, 2011must have a device that displays the magnitude of the load on the hook. Displays that are part of load moment limiting devices that display the load on the hook meet this requirement. Temporary alternative measures: The weight of the load must be determined from a source recognized by the industry (such as the load's manufacturer), or by a calculation method recognized by the industry (such as calculating a steel beam from measured dimensions and a known per foot weight), or by other equally reliable means. This information must be provided to the operator prior to the lift.

27.0 Inspections

27.01 Pre-erection inspection. Before each crane component is erected, it must be inspected by a qualified person for damage or excessive wear.

27.02 The qualified person must pay particular attention to components that will be difficult to inspect thoroughly during shift inspections.

27.03 If the qualified person determines that a component is damaged or worn to the extent that it would create a safety hazard if used on the crane, that component must not be erected on the crane unless it is repaired and, upon re-inspection by the qualified person, found to no longer create a safety hazard.

27.04 If the qualified person determines that, though not presently a safety hazard, the component needs to be monitored, the employer must ensure that the component is checked in the monthly inspections. Any such determination must be documented, and the documentation must be available to any individual who conducts a monthly inspection.

27.05 Post-erection inspection. In addition to the requirements in WAC Part L, the following requirements must be met:

- A load test using certified weights, or scaled weights using a certified scale with a current certificate of calibration, must be conducted after each erection.
- The load test must be conducted in accordance with the manufacturer's instructions when available. Where these instructions are unavailable, the test must be conducted in accordance with written load test procedures developed by a registered professional engineer familiar with the type of equipment involved.

27.06 Monthly. The following additional items must be included:

- Tower (mast) bolts and other structural bolts (for loose or dislodged condition) from the base of the tower crane up or, if the crane is tied to or braced by the structure, those above the upper-most brace support.
- The upper-most tie-in, braces, floor supports and floor wedges where the tower crane is supported by the structure, for loose or dislodged components.

27.07 Annual. In addition to the items that must be inspected under WAC Part L, all turntable and tower bolts must be inspected for proper condition and torque.

27.08 Equipment with a Rated Hoisting/Lifting Capacity of 2,000 Pounds or Less is exempt from the crane standard

28.0 Proper Blocking (Cribbing)

28.01 Improper outrigger setup is the main reason for crane accidents. All outriggers must be used. The crane capacity charts apply only when the outriggers are fully extended. When the beams on a 300-ton capacity crane are retracted as little as 3 inches on each side the lifting capacity is reduced by 22%.

28.02 The ground bearing pressure generated by the crane or boom truck on the outriggers is very high. Much of the total weight of the crane and load may be transmitted to only one outrigger. Since the area of the outrigger float is relatively small it generates high pressures.

28.03 The soft ground found on most construction sites cannot withstand these pressures without deflecting or sinking. To prevent this from happening, *blocking must always be used* under outrigger floats to distribute the crane loads over as large an area as possible. Cribbing should be made from solid 4x4 or 4x6 lumber and also should be used in 2 or more layers placed perpendicular without any spacing between the 4x4's or 4x6's. Once the load is applied the cribbing should not sink. If it does the area of the cribbing must be increased.

28.04 Blocking Formula for Cranes:

Maximum Load = Maximum Rated Crane Capacity

$$\text{Blocking Area} = \frac{\text{Max. Crane Capacity (TONS)}}{5\ (\text{SAFETY FACTOR})}$$

$$\frac{\text{30 Ton Crane}}{5\ (\text{S.F.})} = 6\ \text{ft}^2 \qquad \frac{\text{100 Ton Crane}}{5(\text{S.F.})} = 20\ \text{ft}^2$$

28.05 Blocking formula for Boom Pump Trucks

- Each Boom Pump Truck outrigger carries a maximum load decal. For example, if the decal says the outrigger can carry a maximum load of 40,000 pounds, divide the maximum load by the square inches of your intended pad. If the product of your calculation is greater than 22 psi (Permissible Pressure on virgin ground, see chart), then your pad is too small.

  Example

  40,000 lbs. Decal

  24 inch x 24 inch cribbing (24 x 24 = 576)

  $$\frac{40{,}000\ \text{lbs}}{576\ \text{in}^2} = 69.4\ \text{psi}$$

  40,000 lbs. Decal

  48 inch x 48 inch cribbing (48 x 48 = 2304)

  $$\frac{40{,}000\ \text{lbs}}{2304\ \text{in}^2} = 17.36\ \text{psi}$$

According to the following chart 2' x 2' cribbing is still too small for virgin ground. A 4' x 4' crib would be necessary for use on virgin ground.

Permissible Pressures on Various Surfaces	
Surface	Pressure (PSI)
Virgin	22
Asphalt 8"	29
Compressed Crushed Stone	36
Mixed Granular Soil	51
Clay/Silt Soil, Firm	43
Compacted Gravel, Firm	58 -109
Brittle Rock	145

EHS Forms and Documents

- ***Required Crane Documents***
- ***Mobile Crane Pre-Lift Checklist***
- ***Mobile Crane Hand Signals***
- ***Rigger Inspection Form***
- ***DOSH Hazard Alert***
- ***L&I: Tower Crane Electrical Safety***
- ***Daily Tower Crane Pre-Lift Huddle***
- ***Daily Tower Crane Pre-Lift Checklist***

Policy

Work activities involving pressure testing of piping systems shall be conducted safely.

Purpose

This section addresses standard pressure testing of piping systems to include pneumatic and hydrostatic. Testing processes must be performed with caution and proper preplanning.

Procedure

1.0 General Requirements

1.01 Check all safety devices on compressed air systems.

1.02 Protect employees from contact with compressed air.

1.03 Do not clean clothes with compressed air.

1.04 Never use compressed air for cleaning anything on yourself or a fellow worker.

1.05 Never blow air against another employee or oneself as it possibly could result in serious injury. Open line maximum pressure for cleaning purposes shall be limited to 30 PSI.

1.06 Never point a tool nozzle or air hose at anyone. Never allow a tool nozzle or air hose to contact a person's body.

1.07 It is prohibited to use compressed air to clean up or move combustible dust if such action could cause the dust to be suspended in air and cause a fire or explosion hazard.

1.08 It is prohibited to use compressed air for cleaning if it creates an unhealthful condition of airborne contaminants.

1.09 Use engineering controls and air monitoring to ensure permissible exposure limits are not exceeded if using compressed air for cleaning purposes such as concrete decks prior to a pour.

1.010 Compressed air receivers should be drained of moisture and oil.

1.011 Keep inlet of air receivers and piping systems free from accumulated oil and other materials.

1.012 Make sure air hose and plastic pipe supplying compressed air to portable air tools are safe.

1.013 You must make sure the air hose and hose connections are suitable for air pressure and use.

1.014 Make sure any plastic pipe used to supply compressed air for portable air tools has been specifically identified by the manufacturer as suitable for compressed air use.

1.015 Relieve the pressure in the air line before disconnecting a compressed air tool from the line or disconnecting a hose joint, unless there is automatic valve closing protection at the joint being separated.

1.016 Disconnect the tool from the compressed air supply before repairs are done.

1.017 Eye protection must be worn at all times by the person operating the tool and other persons in the area.

1.018 Make sure any fastener driving air tool discharges all air in the tool when disconnected from the compressed air supply.

1.019 Make sure all pneumatically driven nailers, staplers, and other similar equipment provided with automatic fastener feed have a safety device on the muzzle to prevent the tool from ejecting fasteners, unless the muzzle is in contact with the work surface.

Policy

Precast concrete and tilt-up operations shall be conducted safely with proper planning, equipment and training.

Purpose

To establish procedures that shall be followed in the safe performance of work activities for precast and tilt-up operations.

Procedures

1.0 Design and Planning

1.01 Use accessories which are designed to be compatible.

1.02 Know the design capacity of all lifting devices and accessories. Must use the devices and accessories with the appropriate capacity.

1.03 Prior to pouring panels for a tilt-up, a set of plans or job specifications, including lifting procedures need to be at the job site and made available upon request.

1. Any changes made in the rigging procedure of a tilt-up panel or slab must provide the same degree of safety as required by the original plans.
2. The plans or specifications must contain the following information:
    - The type, size, and location of all lifting inserts.
    - The type, size, and location of all brace inserts or fittings for guy wires in each panel and floor or support.
    - The size of braces or guys to be used.
    - The compression strength which concrete panels must attain prior to being lifted.

1.04 The following conditions must be included in the erection process and incorporated in the design plan:

- Braces and all associated components of the bracing system must be designed to incorporate a safety factor of one and one-half to resist any normal stresses to which they may be subjected, including normal high wind velocity pressures for the area.
- Precast concrete wall units, structural framing, and tilt-up wall panels must be adequately supported to prevent overturning and to prevent collapse until permanent connections are completed.
- Floor braces used to secure panel sections must be placed at an angle of not less than 45 degrees or more than 60 degrees from horizontal when physically possible to install in this manner.
- The bracing on all panel sections must be installed in such a manner as to prevent the panel from accidentally rotating.
- Each panel section not secured by other means must have a minimum of two braces. The braces must be installed in such a manner as to evenly distribute the load or guy wires, when properly installed, may be used in lieu of stiff leg braces.

- If braces are attached to a panel or slab by bolts tightened into inserts installed in holes drilled in concrete, the type of inserts used, and method of installation must develop the required strength to be maintained for the bracing system.
- Inserts to be installed for lifting sections of tilt-up precast panels must be designed mechanically to maintain a safety factor of 3.
- Lifting inserts which are embedded or otherwise attached to precast concrete members, other than the tilt-up members, must be capable of supporting at least 4 times the maximum intended load applied or transmitted to them.
- The compression strength of the concrete must be such that when the proper type, size, and amount of inserts are installed a minimum safety factor of two will be maintained.
- Lifting hardware must support at least 5 times the maximum intended load applied or transmitted to the lifting hardware.
- Discard lifting bolts or other lifting devices that have been bent, worn, or are defective.
- The upper and lower sections of telescoping type braces must be secured by high tensile steel pins or bolts and provide adequate shear strength that will positively secure against accidental removal.
- Do not alter manufactured products that would reduce the safe working load to less than its original value.
- Position inserts so that bolts, or lifting devices, when inserted, will be perpendicular to the face on which they are placed.
- Design of the panels and layout of the pour must be made in such a manner so that when picking, the top of the panel will be away from the crane. If this is not possible, the contractor must consult with a representative of the department and the crane company involved to determine the procedure to be followed in lifting and placing in its permanent position safely.

2.0 Lifting and Bracing

2.01 Lift and handle panels in a manner they will not strike the hoisting equipment, in case of failure.

2.02 Provide physical stops to prevent the bottom edge of a panel being set from slipping off the edge of its supporting structure.

2.03 Do not set tilt-up panels when there is a possibility that wind velocity would create a hazardous condition.

2.04 Designate a qualified signalperson and crane operator for the crane/hoisting and on lifting procedures prior to making the pick. The signalperson must position himself during the pick of the panel to observe both the crane operator and the employees working in the immediate area.

2.05 During the lifting process, workers must keep clear of the underside of the panel.

2.06 People not involved in the lifting process must stay clear of the hazardous area where panels are being raised, moved or placed.

2.07 If braces must be removed temporarily during construction, provide other effective means to safely support the panel during the interim period.

2.08 Properly brace or otherwise secure each panel prior to removal of the hoisting equipment.

2.09 Properly shore short panels or sections not otherwise supported by floor, footings, columns or other structure.

Purpose

The purpose of this program is to develop, implement, and establish safe work practices for concrete and masonry operations.

Policy

This section addresses safe work practices when performing concrete and masonry construction activities.

1.0 General Requirements

1.01 Construction loads will not be placed on a concrete structure until it can be determined that the structure is capable of supporting the loads (construction, vertical, lateral).

1.02 Guard all protruding reinforcing steel that create impalement hazards.

1.03 Guy or support reinforcing steel for walls, piers, columns, and similar vertical structures.

1.04 No employee, except those essential to the post-tensioning operations are allowed behind the jack during tensioning operations. Signs and barriers will be erected to limit access to the post-tensioning area. Personnel are not allowed under stressed members during lifting and erecting.

1.05 Employees are not permitted to work under concrete buckets while buckets are being elevated or lowered.

1.06 Route elevated concrete buckets away from employees as much as practical.

1.07 Preplan routes for suspended loads to ensure no employee is working directly below a load except for employees that are:

- Engaged in placing or initial connection of reinforcement assemblies;
- Hooking or unhooking loads

1.08 Employees working under suspended loads:

- Hoisted materials must be rigged to prevent displacement;
- Use hooks with self-closing safety latches or equivalent

1.09 Prohibit all activities under or within hoisting operations, including unloading and staging areas for reinforcing assemblies.

1.010 Do not apply a cement, sand, and water mixture through a pneumatic hose unless employee is wearing head face protective equipment.

1.011 Employees performing reinforcing steel and/or post-tensioning activities have been trained by a qualified person in the hazards associated and proper procedures and equipment.

1.012 Employees will be retrained when conditions change, equipment or processes change, or an employee exhibits a lack of knowledge.

2.0 Walking surfaces on concrete structural members

2.01 Do not use structural members with studs, dowels, or shear connectors installed on top side as a walkway unless covered with suitable material to provide a safe walking surface.

3.0. Equipment and Tools

3.01 Concrete mixers with one cubic yard or larger loading skips will be equipped with mechanical device to clear the skip of materials with guardrails installed on each side.

3.02 Powered and rotating type concrete troweling machines that are manually guided will be equipped with a control switch that will automatically shut off power whenever the operator's hands are removed from the handles.

3.03 Slick line/distribution systems will be secured to prevent the release of stored energy.

3.04 Slick line/distribution systems will be cleared of any residual concrete upon completion of work or during extended periods of idle time.

3.05 Slick line/distribution systems shall utilize thrust blocks during vertical operations or operations that include changes in direction based on engineering calculations.

3.06 Concrete buggy handles will not extend beyond the wheels on either side of the buggy.

3.07 Runways will be constructed with a safety factor of 4 and be of sufficient width for two buggies.

3.08 Concrete pumps and placing booms have equipment identification tags, and manufacturers manual.

a. Unsafe equipment must be taken out of service and repairs corrected.

b. Controls will be clearly marked.

c. In the event of failure of a structural member, overloading, or contact with energized electric power lines equipment will be certified safe before returning to service.

d. Marking weight must be legible.

e. Use manufacturer or engineered lift points.

f. A concrete pump must have a clearly labeled emergency stop switch and be provided with inlet and outlet guarding.

g. Use outriggers in accordance with manufacturer specifications.

h. Do not drag hoses or lift other loads with a placing boom.

i. Do not pump concrete through a delivery system with grooved ends.

j. Quick connect clamps must be pinned or secured to prevent opening when used in a vertical application.

3.09 Concrete buckets equipped with hydraulic or pneumatic gates will have positive safety latches.

3.010 Riding of concrete buckets is prohibited and not allowed.

3.011 Keep vibrator crews out from under concrete buckets suspended from cranes.

3.012 Block the wheels of ready-mix trucks and set breaks on a slope. Secure sections tremies and similar equipment with wire rope.

3.013 Bull float handles used where they might contact energized electrical conductors will be nonconductive material or insulated with a nonconductive sheath.

4.0 Cast-In-Place Concrete

4.01 Formwork

4.011 Formwork will be designed, fabricated, erected, supported, braced, and maintained to be capable of supporting vertical and lateral loads that may be reasonably anticipated.

4.012 Formwork will be designed with an adequate level of safety. Complex formwork subjected to unusually high concrete pressures will be designed or approved by an engineer or experienced form designer.

4.013 Drawings or plans for the jack layout, formwork (including shoring equipment), working decks, and scaffolds, will be available at the job site.

4.014 Forms will be securely attached to slings with a minimum safety factor of 5. Use of No. 9 tie wire, fiber rope, and similar makeshift lashing is not allowed.

4.015 Taglines will be used in moving panels or other large sections of forms by crane or hoist.

4.016 All shoring equipment (including equipment used in re-shoring operations) will be inspected prior to erection

4.017 Erection shoring equipment will be inspected immediately prior to, during and after concrete placement. Upon inspection, equipment is found damaged will be immediately removed and replaced.

4.018 A copy of the shoring layout will be available at the job site.

4.019 Decking below concrete placement areas will be sectioned off with “Do Not Enter” signage.

4.0110 The sills for shoring will be suitable carrying the maximum intended load.

4.0111 All base plates, shore heads, extension devices and adjustment screws will be in firm contact and secured when necessary with the foundation and the form.

4.0112 Eccentric loads on shore heads and similar members will be prohibited unless these members have been designed for such loading.

4.0113 Inspect erected single post shores with the shoring layout. The spacing between shores shall not exceed the layout specifications. All clamps, screws, pins, and other components will be in the closed or engaged position.

4.0114 Whenever single post shores are used in more than one tier, the layout will be designed and inspected by a structural engineer.

4.0115 Tiered single post shores will be vertically aligned, spliced to prevent misalignment and adequately braced in two mutually perpendicular directions at the splice level. Each tier will also be diagonally braced in the same two directions.

4.0116 Adjustments of single post shores to raise formwork will not be made after the placement of concrete.

4.0117 Re-shoring will be erected, as the original forms and shores are removed, whenever the concrete is required to support loads in excess of its capacity.

4.0118 Walkways along form walls will be constructed in accordance with OSHA scaffold and fall protection standards.

4.02 Vertical Slip Forms

4.021 Slip forms will be designed and constructed, and the form movement carried out,

under the immediate supervision of a person or persons experienced in slip form design and operation. Drawings prepared by a qualified engineer, showing the jack layout, formwork, working decks, and scaffolding, will be available at the job site, and followed.

4.022 The steel rods or pipes on which jacks climb, or by which the forms are lifted, will be specifically designed for that purpose and adequately braced where not encased in concrete.

4.023 Forms will be designed to prevent excessive distortion of the structure during the jacking operation.

4.024 Vertical slip forms will be provided with scaffolds or work platforms where employees are required to work or pass.

4.025 Jacks and vertical supports will be positioned in such a manner that the loads do not exceed the rated capacity of the jacks.

4.026 The jacks or other lifting devices will be provided with mechanical dogs or other automatic holding devices to support the slip forms whenever failure of the power supply or lifting mechanism occurs.

4.027 The form structure will be maintained with all design tolerances specified for plumbness during the jacking operation.

4.028 The predetermined safe rate of lift will proceed steadily and uniformly and not be exceeded.

5.0 Reinforcing Steel

5.01 Reinforcing steel for walls, piers, columns and similar vertical structures will be adequately supported to prevent overturning and to prevent collapse.

5.02 Measures will be taken to prevent unrolled wire mesh from recoiling.

5.03 All vertical and horizontal rebar, form stakes, metal and/or plastic conduit and/or small pipe stub-ups will be protected with approved caps or other industry accepted and tested alternatives to protect against impalement and injury.

5.04 Ensure that reinforcing steel and forms for walls, piers, columns, stairs and similar vertical structures are adequately supported to prevent overturning and collapse and are designed and installed under the supervision of a qualified person.

5.05 Any project specific requirements for this section are listed here.

6.0 Placing and Removal of Forms

6.01 Forms intended for use where there is a free fall of over 10 feet will have adequate scaffolding and guardrails, or employees working on the forms will be protected from falls.

6.02 Do not release overhead forms or vertical forms being raised or removed in sections until adequately braced and secured.

6.03 Erect appropriate warning signs along walkways to protect workers or others at lower levels from falling materials.

6.04 Do not remove forms until the concrete is cured. The concrete will be adequately set in

order to permit safe removal of the forms, shoring, and bracing. Adhere to engineer's specifications and local building codes in determining the length of time forms should remain in place following concrete placement.

6.05 Perform tests on field-cured concrete specimens to insure that concrete has obtained sufficient strength to safely support the load prior to removal of forms

7.0 Precast Concrete and Tilt-up Operations

7.01 Use accessories which are designed to be compatible.

7.02 Know the design capacity of all lifting devices and accessories and use the devices and accessories with the appropriate capacity.

7.03 Prior to pouring panels for a tilt-up, a set of plans or job specifications, including lifting procedures will be at the job site and made available upon request.

7.04 Precast concrete wall units, structural framing and tilt-up wall panels will be adequately supported to prevent overturning and to prevent collapse until permanent connections are completed.

7.05 Lifting inserts that are embedded or otherwise attached to tilt-up precast concrete members will be capable of supporting at least 4 times the maximum intended load applied or transmitted to them.

7.06 Lifting hardware will be capable of supporting at least five times the maximum intended load applied or transmitted to the lifting hardware.

7.07 Discard lifting bolts or other lifting devices that have been bent, worn, or are defective.

7.08 Design of the panels and layout of the pour will be made in such a manner so that when picking, the top of the panel will be away from the crane. If this is not possible, the contractor will consult with a representative of the department and the crane company involved to determine the procedure to be followed in lifting and placing in its permanent position safely.

7.09 Lift and handle panels in a manner they will not strike the hoisting equipment, in case of failure.

7.010 Provide physical stops to prevent the bottom edge of a panel being set from slipping off the edge of its supporting structure.

7.011 Do not set tilt-up panels when there is a possibility that wind velocity would create a hazardous condition.

7.012 Designate a qualified signalperson and crane operator for the crane/hoisting and on lifting procedures prior to making the pick. The signalperson must position himself during the pick of the panel to observe both the crane operator and the employees working in the immediate area.

7.013 During the lifting process, workers will keep clear of the underside of the panel.

7.014 People not involved in the lifting process will stay clear of the hazardous area where panels are being raised, moved or placed.

7.015 If braces are removed temporarily during construction, provide other effective means to safely support the panel during the interim period.

7.016 Properly brace or otherwise secure each panel prior to removal of the hoisting equipment.

7.017 Properly shore short panels or sections not otherwise supported by floor, footings, columns or other structure.

8.0 Lift Slab

8.01 All lift slab operations will be designed by a Registered Professional Engineer with experience in lift slab construction.

8.02 Only employees essential to the jacking operation are allowed in the building/structure while jacking operation is taking place.

8.03 Other employees are permitted in the building if the structure has been reinforced sufficiently to ensure its integrity during erection as determined by a registered professional engineer.

8.04 Employees not essential to the jacking operation are not allowed to be immediately beneath a slab while it is being lifted.

8.05 When making temporary connections to support slabs, secure wedges by tack welding, or an equivalent method of securing the wedges to prevent them from falling out of position. Lifting rods may not be released until the wedges at that column have been secured.

8.06 Do not execute load transfer from jack/lifting units to building columns until the welds on the column shear plates (weld blocks) are cooled to air temperature.

8.07 Positively secure jacks/lifting units to building columns so that they do not become dislodged or dislocated.

9.0 Masonry Construction

9.01 Establish a limited access zone whenever a masonry wall is being constructed. The limited access zone must conform to the following:

- Establish prior to the start of construction of the wall.
- Equal to the height of the wall to be constructed plus four feet and will run the entire length of the wall.
- Establish on the side of the wall that does not have a scaffold.
- Restrict entry to only employees actively engaged in constructing the wall. Other employees are not allowed to enter this zone.
- Remain in place until the wall is adequately supported.

9.02 All masonry walls over eight (8) feet in height will be adequately braced to prevent overturning and to prevent collapse unless the wall is adequately supported so that it will not overturn or collapse. The bracing will remain in place until permanent supporting elements of the structure are in place.

Purpose

This purpose of this section is to establish site specific guidelines for the safe drilling, coring, or cutting into concrete or post tension slabs.

Policy

Penetration of concrete or PT slab activities will be well planned and conducted safely with trained personnel in accordance with DOSH standards.

Procedure

1.0 Penetration of Concrete or PT Slab

1.01 Prior to starting penetration of concrete or PT slab a drilling/coring/cutting into concrete or post tension slab checklist must be completed by the subcontractor supervisor and submitted to the project superintendent.

1.02 The subcontractor will ensure employees involved with the penetration activity are trained on the hazards of drilling, coring, cutting into concrete slab or post tension cables.

1.03 A Job Hazard Analysis will be completed and submitted to the project superintendent.

1.04 Determine correct depth to drill holes and how will the drill bit be identified for correct depth.

1.05 Determine X-ray or scanning detection required.

EHS Forms and Documents

* ***Drilling, Coring, Cutting into Concrete or PT Slab Checklist***

Purpose

This purpose of this section is to establish site specific demolition guidelines to ensure they safety of personnel.

Policy

Demolition activities will be well planned and conducted safely with trained personnel in accordance with DOSH standards.

Procedure

1.0 Demolition plan

1.01 Prior to starting demolition activities, a site specific demolition meeting checklist and site-specific demolition plan will be developed by the competent person.

1.02 The completed site specific demotion meeting checklist and site specific demolition plan will be submitted to the project superintendent and kept on site during demolition operations.

1.03 Structural and building demolition must be performed under the supervision of a competent supervision and afford safe working conditions for personnel.

1.04 Do not permit workers to perform demolition that will expose persons working on a lower level to danger.

1.05 Protect employee entrances to multistory structures being demolished by canopy protection from the face of the building for a minimum of 8 feet.

1.06 All such canopies must be at least two feet wider than the building entrances or openings (one foot wider on each side thereof), and must be capable of sustaining a load of 150 pounds per square foot.

1.07 Floor openings, not used as material drops, must be covered over with material substantial enough to support the weight of any load which may be imposed. Secure opening covers in place. Mark as “hole”.

1.08 Begin the demolition of exterior walls and floor construction at the top of the structure and proceed downward.

1.09 Remove protruding nails in boards, planks and timber.

1.010 Provide dust control with adequate water hose supply.

1.011 Remove glass fragmentation hazards.

1.012 Provide fall protection and protect openings. A competent person will complete a fall hazard work plan and train crew for elevations 10 feet and greater.

2.0 Engineering Survey

2.01 Prior to demolition operations, an engineering survey must be performed by a competent person of the structure to determine structural integrity and planning for potential collapse.

2.02 The completed engineering survey will be submitted to the project superintendent and kept on site during demolition operations.

2.03 All personnel involved with demolition will be trained by the competent person on the engineering survey.

3.0 Hazardous Materials Survey and Abatement Plan

3.01 Prior to demolition activities, a hazardous materials survey must be accomplished to identify hazardous materials at the jobsite to include astestos, and lead.

3.02 Determine whether chemicals, gases, explosives, flammables or similarly dangerous substances are present at the jobsite. When presence of such materials is suspected, perform testing and removal or purging and eliminate the hazards before demolition activities.

4.0 Utility Protection

4.01 Shut off, cap, or otherwise control all electric, gas, water, steam, sewer, and other service lines outside the building line before demolition work is started. Notify any utility company which is involved in advance.

4.02 If necessary to maintain power, water or other utilities during demolition, such lines must be temporarily relocated, as needed, and protected.

5.0 Shoring and Bracing

5.01 Shore or brace the walls or floors when a structure has been damaged by fire, flood, expolsoing or other cause.

5.02 The demolition plan must identify structures impacted by demolition including flooring, internal walls, and party walls and shoring required.

6.0 Pest and Rodents

6.06 Check with local jurisdiction if permitting requires a pest and rodent control plan and procedures.

EHS Forms and Documents

* ***Demolition Meeting***

Policy

This section addresses safe work practices when working around or within excavation and trenching operations.

Scope

This section protects against hazards associated with trenching and excavation activities.

Procedure

1.0 General Requirements

1.01 Do not enter an excavation without permission and safety training from your supervisor/competent person.

2.0 Competent Person

2.01 One who can identify existing or predictable hazards in the surroundings that are unsanitary, hazardous, or dangerous to employees. Also has authorization or authority by the nature of their position to take prompt corrective measures to eliminate them. If danger of cave-in exists, the competent person shall stop all work in the excavation until necessary precautions have been taken to safeguard the employees.

3.0 Inspections

3.01 A daily inspection is required by the competent person. The competent person will complete an excavation inspection checklist daily. **This checklist must be completed prior to the start of work and as needed throughout the shift. Inspections must be made after every rainstorm or other hazard event and as site conditions change.**

3.02 Identify who the competent person is at weekly safety meeting.

4.0. Surface encumbrances

4.01 Remove trees, boulders, and other surface encumbrances, which may be hazardous to employees working on the excavation.

5.0 Underground installations

5.01 A utility check must be conducted prior to excavation activity by contacting utility companies or owners within customary local response times, advise of proposed work. Call (811/ Utility Notification Center) and request a locate of underground utilities prior to excavating.

5.02 Inspect fully for underground installations, i.e., electric lines, sewers, water, and fuel lines before commencing excavations.

5.03 When excavation operations approach the location of underground installations, you must determine the exact location of the installations by safe and acceptable means. Hand dig or use

hydro-vacuum truck within 4 feet.

5.04 If hand digging, employees shall work at least 10 feet apart to prevent injuring each other with picks, shovels, and other tools.

5.05 While the excavation is open, you must protect underground installations, supported, or removed as necessary to safeguard employees.

6.0 Access and egress

6.01 Structural ramps.

6.02 Structural ramps that are used as a means of access or egress from excavations must be designed by a competent person.

6.03 Structural ramps used for access or egress of equipment must be designed by a competent person qualified in structural design and must be constructed in accordance with the design.

6.04 Safe egress and access in trench excavations is required with no more than 25 feet of egress travel, i.e., ladders, ramps. Extend ladders at least 36 inches above grade.

7.0 Fall protection

7.01 Walkways or bridges with standard railings **must be provided** when employees or equipment are required to cross over excavations. Provide standard guardrails (top rail height of 39-45", mid-rail, and toeboard where walkways are 4 feet or more above lower levels.

8.0 Personal Protective Equipment

8.01 Employees exposed to vehicular traffic must wear, high-visibility garments and personal protective equipment (PPE) based on task hazard analysis. Minimum PPE consists of ANSI hard hat, ANSI safety glasses, high-visibility garment, and appropriate work shoes/boots. Respiratory protection, gloves, and ear protection as defined by task.

9.0 Exposure to falling loads

13.01 No employee will be permitted underneath loads handled by lifting or digging equipment. Employees shall stand clear of any vehicle being loaded or unloaded to avoid being struck by falling objects or materials.

9.01 Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped with a cab shield or canopy adequate to protect the operator.

10.0 Warning system for mobile equipment

10.01 When mobile equipment is operated adjacent to and/or near excavations and the operator does not have a clear and direct view of the edge of the excavation, you must utilize a warning system such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

11.0 Hazardous Atmospheres

11.011 Refer to confined spaces section of program.

12.0 Water Accumulation

12.01 Precautions must be taken to protect employees from the hazards posed by water accumulation. If water accumulation is controlled by water removal equipment, the competent person will be responsible for monitoring the equipment to ensure proper operation. If excavation work interrupts the natural drainage of surface water (such as streams), suitable means of diversion will be used to prevent water from entering the excavation.

13.0 Stability of Adjacent Structures

13.01 Where stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees. A registered professional engineer must design this support system and construction of the system must follow the design parameters that such work will not pose a hazard.

13.02 Sidewalks, pavements, and appurtenant structure must not be undermined unless a support system or another method of protection is provided to protect employees from the possible collapse of such structures.

13.03 Protect employees from excavated spoils and material or equipment. Protection must be placed at least two feet from the edge of the excavation in such manner that it will not fall back into the excavation.

14.0 Soil Classification, Sloping, Benching

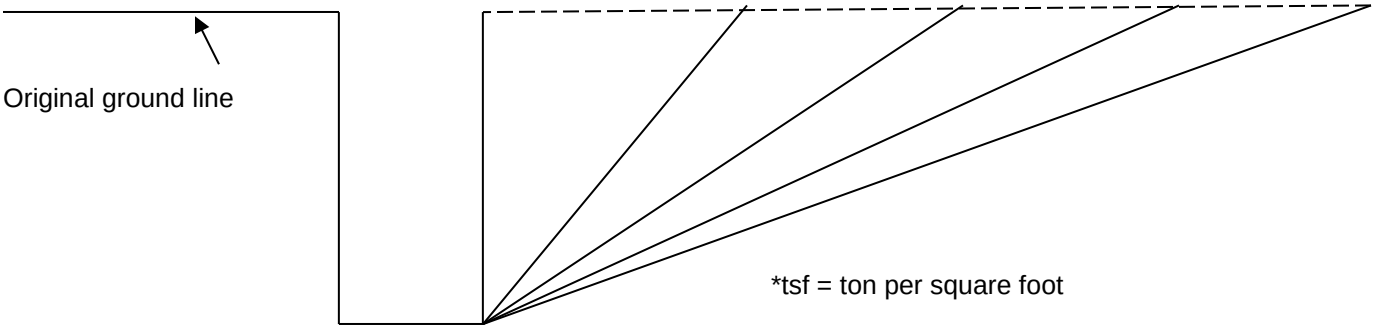
14.01 The walls and faces of all excavations in which employees are exposed to danger from moving ground **must be guarded** by a shoring system, sloping of the ground, or some other equivalent means.The competent person will perform soil classification per the parameters of WAC 296-155-66401. The competent person will design all sloping and benching systems per soil classification parameters of WAC 296-155-66403. Any trench greater than 20’ deep shall require a design by a registered professional engineer. All slopes shall be cut to the angle of repose except where solid rock allows for splitting or line drilling. Refer to the WAC 296-155-650 –Excavation & Trenching.

14.02 The determination of the angle of slope and design of the supporting system shall be based on careful evaluation of pertinent factors, such as:

1. Depth and/or cut/soils classification
2. Possible variation in water content of the material while excavation is open
3. Anticipated changes in materials from exposure to air, sun, water, or freezing
4. Loading imposed by structures, equipment, or overlaying or stored material
5. Vibration from equipment, blasting, traffic, or other sources

Approximate Angle of Slope for sloping of sides of excavations

		Type A	Type B	Type C	
		Cohesive and cemented soils. Unconfined compressive strength of 1.5 tsf* or greater. ¾:1 (63°26')	Non-cohesive Granular soils. Unconfined compressive strength >0.5 tsf but <1.5 tsf*. 1:1 (45°)	Compacted sharp sand. Unconfined compressive strength of 0.5 tsf* or less. 1 ½:1 (33°41')	Well rounded loose sand 2:1 (26°34')
The presence of ground water requires special treatment	Solid rock and compact shale (90°)				



15.0 Protective Systems

15.01 Supporting systems (piling, cribbing, shoring, etc.) shall conform to applicable standards for such excavations.

15.02 Materials used for sheeting, sheet piling, cribbing, bracing, shoring or underpinning shall be in good, serviceable condition. Currently, Foushée uses commercially made trench boxes that meet all criteria proposed by WAC 296-155-657(3) and commercially made hydraulic shoring for trenches that meet all criteria proposed by WAC 296-155-66407. It is policy to use only commercially made trench shielding that complies with all codes and regulations.

16.0 Additional Hazard Mitigation

16.01 The competent person will insure all exposed employees have been effectively trained in the hazards specific to that job.

16.02 Only designated employees in areas of operation.

16.03 Designated employees must wear an orange safety vest around equipment.

16.04 Equipment must have back-up alarms.

16.05 When equipment is trenching, employees must stay well behind the bucket.

16.06 Identify & avoid pinch points.

16.07 All trench/excavation edges will be properly marked to identify edges to personnel and mobile equipment in the vicinity and prevent accidental entry to the trench/excavation.

16.08 Maintain safe working distance from trucks & equipment.

16.09 Never walk between truck & pup.

16.010 Dig all trenches over 4'-0" deep in accordance with WAC 296-155; cut trenches at a 1 1/2: 1 angle of repose unless soil conditions deteriorate or an engineered shoring system is used.

16.011 Only qualified and trained operators will operate heavy equipment.

16.012 Thoroughly review all the potential hazards each time equipment is relocated.

16.013 Mark less visible structural members (posts or columns) with a high visibility tape.

16.014 Review all drawings for known locations of utilities.

16.015 Mitigate potential dust conditions with use of water or other means.

EHS Forms and Documents

* ***Trench and Excavation Inspection***

Policy

Adhering to electrical safe practices and regulations is required.

Purpose

The purpose of this section is to protect against the hazards associated with electricity. Safeguards against electrical hazards include an assured grounding program, general electrical safety requirements and lockout/tagout (LOTO) procedures.

1.0 General Requirements

1.01 Employees are not permitted to work in proximity to any part of an electric power circuit that the employee could contact during the course of work, unless protection is provided against electric shock.

1.02 When the exact location of underground electric powerlines is unknown, you must not begin any activity that may bring employees into contact with those powerlines. Powerlines will be deenergized and grounded.

1.03 Post and maintain proper warning signs where energized electric power circuits are exposed or concealed where work may bring employees into physical contact.

1.01 Employees are not permitted to perform any work, or pile, store or handle any material, nor are they permitted to erect or dismantle scaffolding, commercial signs, or structures, or operate tools, machinery or equipment within the specified minimum distances from energized high voltage electrical conductors.

1.02 Electrical distribution and transmission lines will be deenergized and visibly grounded at point of work, or where insulating barriers have been erected to prevent physical contact with the lines. Employees will operate equipment proximate to, under, over, by, or near energized conductors only in accordance with the following:

1.03 For lines rated 50 kV or below, minimum clearance between the lines and any part of the equipment or load must be 10 feet.

1.04 For lines rated over 50 k, minimum clearance between the lines and any part of the equipment or load must be 10 feet plus 0.4 inch or each 1 kV. over 50 kV., or twice the length of the line insulator but never less than 10 feet.

1.05 Only qualified persons are permitted to work on electric circuit parts of equipment that have not been deenergized.

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

1.07 All electrical power tools and extension cords will be properly insulated.

1.08 Electrical power equipment will be grounded or double insulated.

2.0 Overhead electric lines

2.01 Where overhead electric conductors are encountered in proximity to a work area:

a. Ascertain voltage and minimum clearance distance required;

b. Maintain the minimum clearance distance;

c. If necessary, make arrangements with the owners of the lines for relocation.

d. When moving construction equipment, apparatus, machinery, etc., all such movements must avoid striking supporting structures, guy wires, or other elements of the electrical utility system causing the conductors to so swing or move as to decrease clearances to less than 10 feet from construction equipment, or to cause them to come together.

e. A vehicle in transit with its structure lowered must have at least 4 ft. of clearance.

f. If the voltage is higher than 50kV, you must increase the clearance 0.4 inch for every1kV over that voltage.

3.0 Warning sign required

3.01 Post and maintain approved durable warning sign legible at 12 feet, reading "It is unlawful to operate this equipment within 10 feet of electrical conductors" in plain view of the operator at the controls of each crane, derrick, shovel, drilling rig, pile driver or similar apparatus which is capable of vertical, lateral or swinging motion.

3.02 Install similar signage on the outside of equipment and locate readily visible for personnel engaged in the work operation.

3.03 Signs will be not less than 6" x 8" dimensions with the word "Warning" or "Danger" in large red letters across the top.

3.04 Overhead wires are considered to be energized until the owner of such line or the electrical utility authorities indicate that it is not an energized line and has been visibly grounded.

4.0 Passageways and open spaces

4.01 Provide barriers or guarding when energized parts of electrical equipment are exposed.

4.02 Keep working spaces and walkways clear of cords to prevent tripping hazards to employees.

5.0 Cords and cables

5.01 Visually inspect all cords and cables for damage and remove from service or repair.

5.02 Do not use damaged or frayed electric cords or cables.

5.03 Do not fasten extension cords with staples, hang them from nails, or suspend them by wire that could damage the outer jacket.

5.04 Do not use flexible electric cords connected to equipment for raising or lowering (hoisting) equipment.

6.0 Ground Fault Circuit Interrupters (GFCI)

6.06 All cord sets and cord-plug electrical equipment, tools or appliances that are 120 volts will be connected to a GFCI. Office equipment and appliances in site offices do not require GFCI devices.

6.07 Each worker, after plugging in his/her tool and/or extension cord, will test and reset the GFCI device being used to ensure it is working properly with each use. If the GFCI device is not functioning properly they will repeat the process until a properly working GFCI device is found. They will report the defective GFCI device to their supervisor.

6.08 Any project specific requirements for this section are listed here.

7.0 Double-Insulated Tools

7.01 All tools must have a grounding conductor or be double-insulated.

7.02 Tools where this label has been removed, painted over, or is otherwise not readable will be removed from service.

8.0 Electrical equipment and installations

8.01 Electrical systems will be inspected and maintained on a regular basis and free from recognized hazards.

8.02 All equipment will have positive indication of “ON” (energized) and “OFF” (de-energized) clearly labeled on the device/equipment

8.03 Electrical equipment will not be opened, adjusted, repaired, or otherwise handled until it is de-energized and locked-out of service.

8.04 De-energized equipment will be tested before performing any work on the equipment.

8.05 If live electrical work is required during commissioning, troubleshooting and/or maintenance, work will be performed under an energized electrical permit and the requirements of NFPA 70E

8.06 All metal panels, boxes, covers, conduit, etc., that are part of the electrical system will be grounded.

8.07 All electrical equipment exposed to flammable gases or vapors, combustible dust, or ignitable fibers will be explosion-proof

8.08 All circuit breaker panels will be labeled to show what voltage, phase, and feeder source they contain and will be marked in accordance with ANSI standards and National Electric Code (NEC)

8.09 Panel covers will be kept in place whenever the panel is energized.

8.010 All cables exiting metal panels or boxes will be secured with stress relieving clamps.

8.011 Waterproof clamps will be used as necessary.

8.012 All panels will be equipped with a lockable door so that power can be turned off and locked out for repairs. Adequate space is needed to open the door at least 90 degrees.

8.013 Clearance will be according to the table below:

8.014 Nominal voltage to ground minimum clear distance for conditions1

Table I-1 Working Clearances			
Nominal Voltage to Ground	**Minimum Clear Distance for Conditions[1]**		
	(a) Feet[2]	(b) Feet[2]	(c) Feet[2]
0-150	3	3	3
151-600	3	3 1/2	4

8.015 1Conditions (a), (b), b) are as follows: (a) Exposed live parts on one side and no live or grounded parts on the other side of the working space, or exposed live parts on both sides effectively guarded by insulating material. Insulated wire or insulated busbars operating at no more than 300 volts are note considered live parts. (b) Exposed live parts on one side and grounded parts on the other side. (c) Exposed live parts on both sides of the workplace [not guarded as provided in condition (a)] with the operator between.

8.016 For all international systems of unites (SI): one foot = 0.3048 meters

9.0 Guarding of live parts

9.01 Guard live parts of electric equipment operating at 50 volts or more against accidental contact by cabinets or other forms of enclosures, or by any of the following means:

a. By location in a room, vault, or similar enclosure that is accessible only to qualified persons.

b. By partitions or screens so arranged that only qualified persons will have access to the space within reach of the live parts. Any openings in such partitions or screens will be sized and located to prevent accidental contact with the live parts or to bring conducting objects into contact with them.

c. Arrange enclosures or guards to ensure they are protected from physical damage.

d. Mark entrances to rooms and guarded locations containing exposed live parts with conspicuous warning signs prohibiting unqualified persons to enter.

Policy

Falls from elevation are a major cause of injuries and death in the construction industry. Foushée is committed to eliminating injuries caused by fall hazards by instituting a program of 100% fall protection for all fall hazards regardless of height.

Definitions

Unprotected sides and edges means any open side or edge of a floor, roof, balcony/deck, platform, ramp, runway, or walking/working surface where there is no standard guardrail system, or parapet wall of solid strength and construction that is at least thirty-nine inches in vertical height.

Walking/working surface means Any surface, whether horizontal or vertical on which an employee walks, works, or gains access to a work area or workplace location. Walking/working surfaces include, but are not limited to, floors, the ground, roofs, ramps, bridges, runways, stairs, dock boards, formwork, and reinforcing steel but not including ladders.

Procedures

1.0 General Requirements

1.01 **Fall protection at "0" feet -** Open sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment, such as dip tanks and material handling equipment, and similar hazards will be guarded with a standard guardrail system or other acceptable fall protection systems per WAC 296-880-10010 (1).

1.02 **Fall protection at "4" feet -** Every open sided walking/working surface or platform four feet or more above adjacent floor or ground level will be guarded by a standard guardrail system, or equivalent, as specified in WAC 296-880-20005. Guarding is not required where there is entrance to a ramp, stairway, or fixed ladder.

1.03 **Fall protection at "10" feet –** Appropriate fall protection system will be provided, installed, and implemented according to the requirements in WAC 296-880-30005 when employees are exposed to fall hazards of ten feet or more to the ground or lower level.

2.0 Fall Protection Work Plan

2.01 All work areas with fall hazards of 10 feet or more will implement a fall protection work plan before any employees begin work. The employees in the specific work area will be trained in the fall hazards and the method used to implement fall protection. The training guide on the next page will be used to train employees in the inspection and maintenance of their fall protection equipment, as well as fall protection selection criteria. All employees will use fall protection when there is exposure to any fall hazard. Employees who fail to follow this policy are subject to disciplinary action, up to and including dismissal.

3.0 Rescue Considerations

3.01 As required by State & Federal rule, when personal fall arrest systems are used, the employer must assure that employees can be promptly rescued or can rescue themselves should a fall occur. The availability of rescue personnel, ladders or other rescue equipment should be evaluated. In some situations, equipment, which allows employees to rescue themselves after a fall has been arrested, may be desirable, such as devices which have descent capability.

4.0 Training

4.01 All employees that are exposed to fall hazards will be trained in the recognition and minimization of such hazards. Training will be arranged through Foushée or the individual subcontractor's management. The employee will be trained and able to demonstrate understanding in the following:

- Nature of fall hazards in the work area
- When fall protection is required
- What fall protection is required
- The correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems
- The use and operation of fall protection systems, including controlled access zones and guardrail, personal fall arrest and warning lines
- The limitations of fall protection systems and the use of mechanical equipment during the performance of roofing work on low-slope roofs
- The correct procedures for equipment and materials handling and storage and the erection of overhead protection
- The employee's role in fall protection plans
- The requirements of WAC 296-880

5.0 Safety Monitoring Systems

5.01 When fall protection systems, including personal fall arrest systems, warning line systems, controlled access zones or guardrail system cannot be implemented, then a safety monitoring system will be established. The responsible department shall designate a safety monitor to monitor the safety of the workers. Procedures for a safety monitor are outlined in WAC 296-880-40045.

EHS Forms and Documents

- ***Fall Protection Work Plan***

Policy

The jobsite supervision will take appropriate measures to protect personnel from fire hanzards and employees will follow all necessary measures for fire prevention.

Purpose

This section establishes procedures for jobsite fire protection and prevention.

Procedure

***Contact Safety Department for requirements on how to store flammable liquids inside or outside buildings or use of Temporary heating devices**

1.0 Portable fire extinguishers

1.01 You must provide a fire extinguisher, rated not less than 2A, for each 3,000 square feet of a combustible building area. Travel distance from any point of the protected area to the nearest fire extinguisher must not exceed a horizontal distance of 100 feet.

1.02 You must provide one or more fire extinguishers, rated not less than 2A, on each floor. In multistory buildings, where combustibles are present, at least one fire extinguisher must be located adjacent to a stairway.

1.03 Provide a fire extinguisher, rated not less than 10B, within 50 feet of wherever more than 5 gallons of flammable liquids or 5 pounds of flammable gas are being used on the job site.

1.04 Visually inspect fire extinguishers monthly and perform annual maintenance checks.

1.05 Know the location and use of fire extinguishing equipment and the procedure for sounding a fire alarm.

1.06 Make sure to comply with local fire regulations if disposing of waste material or debris by burning.

1.07 Keep all solvent waste, oily rags, and flammable liquids in fire-resistant covered containers until removed from the work site.

1.08 Always have an appropriate fire extinguisher in good operating condition readily available when operating welding or cutting equipment.

1.09 Trash piles must be removed as soon as possible. Trash is a safety and fire hazard.

2.0 Water supply

2.01 Make available a temporary or permanent water supply, of sufficient volume, duration, and pressure, required to properly operate firefighting equipment as soon as combustible materials accumulate.

3.0 Ignition hazards

3.01 Locate internal combustion engine powered equipment so that exhausts are well away from combustible materials. Maintain a clearance of at least 6 inches between piping and combustible material.

3.02 Smoking is prohibited at or in the vicinity of operations which constitute a fire hazard, and must be conspicuously posted: “No smoking or open flame.”

4.0 Open yard storage

4.01 Pile combustible materials no higher than 20 feet and stable. Keep the storage onsite free from accumulation of unnecessary combustible materials.

4.02 Do not store combustible material outdoors within 10 feet of a building or structure.

5.0 Indoor storage

5.01 Storage must not obstruct, or affect, means of exit.

- Segregate noncompatible materials, which may create a fire hazard, by a barrier having a fire resistance of at least 1 hour.
- Pile material to minimize the spread of fire internally and to permit convenient access for firefighting.
- Maintain stable piling at all times.
- Maintain clearance of at least 36 inches between the top level of stored material and the sprinkler deflectors.
- Maintain clearance around lights and heating units to prevent ignition of combustible materials.
- Maintain a clearance of 24 inches around the path of travel of fire doors unless a barricade.

6.0 Flammable liquids

6.01 Use only approved containers and portable tanks for storage and handling of flammable liquids.

6.02 Use approved metal safety cans, or department of transportation approved containers for the handling and use of flammable liquids in quantities 5 gallons or less.

6.03 For quantities of one gallon or less, only the original container may be used for storage, use, and handling of flammable liquids.

6.04 Do not store flammable liquids in areas used for exits, stairways, or normally used for the safe passage of people.

6.05 Mark and label flammable liquid containers to indicate their contents. Each storage container for flammable liquids, with a capacity of 50 gallons or more, must have the contents of the container identified by a sign of clearly visible contrasting colors.

7.0 Indoor storage of flammable liquids

7.01 Do not store more than 25 gallons of flammable liquids in a room outside of an approved storage cabinet.

7.02 Store quantities of flammable liquid in excess of 25 gallons in an acceptable or approved cabinet.

7.03 Cabinets must be labeled in conspicuous lettering, “Flammable—Keep Away from Open Flames.”

7.04 You must not store more than 60 gallons of Category 1, 2, or 3 flammable liquids or 120 gallons of Category 4 flammable liquids in any one storage cabinet. Not more than 3 such cabinets may be located in a single storage area. You must store quantities in excess of this in an inside storage room.

7.05 Do not store materials which will react with water and create a fire hazard in the same room with flammable liquids.

8.0 Liquefied petroleum gas (LP-gas)

8.01 Approval of equipment and systems.

- Each system must have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type.
- All cylinders must meet the department of transportation specification identification requirements published in 49 C.F.R. Part 178, Shipping Container Specifications.

9.0 Welding on LP-gas containers

9.01 Welding is prohibited on containers.

10.0 Container valves and container accessories

10.01 Valves, fittings, and accessories connected directly to the container must have a rated working pressure of at least 250 p.s.i.g.

10.02 Connections to containers, except safety relief connections, liquid level gauging devices, and plugged openings, must have shutoff valves located as close to the container as practicable.

11.0 Safety devices

11.01 Every container and every vaporizer must be provided with one or more approved safety relief valves or devices. Keep valves away from any opening.

11.02 Arrange valves to afford free vent to the outer air with discharge not less than 5 feet horizontally away from any opening into a building which is below such discharge. Do not locate less than 5 feet away from openings into sealed combustion system appliance or mechanical air intakes.

12.0 Dispensing

12.01 Perform filling of fuel containers for trucks or motor vehicles from bulk storage containers not less than than 25 feet from the nearest building, opening or other construction.

12.02 Fill portable containers or containers mounted on skids from storage containers not less than 50 feet from the nearest building.

13.0 Containers and regulating equipment installed outside of buildings or structures

13.01 Containers must be upright upon firm foundations or otherwise firmly secured. You must guard against the possible effect on the outlet piping of settling by a flexible connection or special fitting.

14.0 Portable heaters

14.01 Portable heaters, including salamanders, must be equipped with an approved automatic device to shut off the flow of gas to the main burner, and pilot if used, in the event of flame failure.

14.02 Heaters, with inputs above 50,000 BTU per hour, must be equipped with either a pilot, which must be lighted and proved before the main burner can be turned on, or an electrical ignition system.

15.0 Storage of LPG containers

15.01 You must not store LPG inside a building.

16.0 Storage outside of buildings

Table D-3	
Quantity of LP-gas stored	**Distance (feet)**
500 lbs. Or less	0
501 to 6,000 lbs.	10
6,001, to 10,000 lbs.	20
Over 10,000 lbs.	25

16.01 Containers must be in a suitable ventilated enclosure or otherwise protected against tampering, or possible damage by vehicular traffic.

17. Fire protection

17.01 Provide storage locations with at least one approved 20-B:C or greater portable fire extinguisher.

Policy

The use of powered industrial trucks shall be conducted safely and only by a trained and authorized operator. Work platforms and PIT's used to lift people require authorization for use.

*__Contact the Foushée Safety Department for additional requirements.__

Purpose

This section applies to all powered industrial trucks that use electric motors or internal combustion engines that includes, but is not limited to:

a. Fork trucks.
b. Forklifts.
c. Tractors.
d. Platform lift trucks.
e. Motorized hand trucks.
f. Other specialized industrial trucks.

*Foushée primarily uses forklifts.

1.0 Definitions

"ANSI The American National Standards Institute.

"Authorized person (maintenance)" A person who has been designated to perform maintenance on a PIT.

"Authorized person (training)" A person approved or assigned by the employer to perform training for powered industrial truck operators.

"Approved" Listed or approved by a nationally recognized testing laboratory or a federal agency that issues approvals for equipment such as the Mine Safety and Health Administration (MSHA); the National Institute for Occupational Safety and Health (NIOSH); Department of Transportation; or U.S. Coast Guard, which issue approvals for such equipment.

"Bridge plate (dock-board)" A device used to span the distance between rail cars or highway vehicles and loading platforms.

"Classified location or hazardous location" Areas that could be hazardous because of explosive or flammable atmospheres. These locations are broken down into the following categories:

a. Class I locations are areas where flammable gases or vapors are or may be present in
b. the air in quantities sufficient to produce explosive or ignitable mixtures.
c. Class II locations are areas where the presence of combustible dust could be sufficient
d. to produce explosions.
e. Class III locations are areas where the presence of easily ignitable fibers are

suspended in the air but are not in large enough quantities to produce ignitable mixtures.

"Counterweight" A weight used to counteract, or the load being carried by the truck, or to increase the load carrying capacity of a truck.

"Designations" A code used to show the different types of hazardous (classified) locations where PIT's can be safely used:

a. D refers to trucks that are diesel engine powered that have minimum safeguards against inherent fire hazards.
b. E refers to electrically powered trucks that have minimum acceptable safeguards against inherent fire hazards.
c. G refers to gasoline powered trucks that have minimum acceptable safeguards against inherent fire hazards.
d. GS refers to gasoline powered trucks that are provided with additional exhaust, fuel, and electrical systems safeguards.
e. LP refers to liquefied petroleum gas-powered trucks that, in addition to meeting all the requirements for type G trucks, have minimum acceptable safeguards against inherent fire hazards.
f. LPS refers to liquefied petroleum gas powered trucks that in addition to meeting the requirements for LP type trucks, have additional exhaust, fuel, and electrical systems safeguards.

"Electrolyte" A chemical, usually acid, that is mixed with water to produce electricity.

"Flammable liquid" Any liquid having a flashpoint at or below 199.4°F (93°C requirements for a Category 4 flammable liquid.

"Flashpoint"The minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid, and shall be determined as follows:

"Liquefied petroleum gas" Any gas that is composed predominantly of the following hydrocarbons, or mixtures of them; propane, propylene, butanes (normal butane or iso-butane), and butylene.

"Load engaging" A device attached to a powered industrial truck and used to manipulate or carry a load.

"Motorized hand truck" A powered truck with wheeled forks designed to go under or between pallets and is controlled by a walking or riding operator.

"Powered industrial truck (PIT)" A mobile, power-driven vehicle used to carry, push, pull, lift, stack, or tier material. Rough terrain forklift truck. A truck intended to be used on unimproved natural terrain and at construction sites.

"Vertical load backrest extension" A device that extends vertically from the fork carriage frame.

2.0 Training

2.01 Employees must successfully complete an operator training program before operating PIT's by an experienced trainer or operator designated by the Safety Department. All training and evaluation must be completed before an operator is permitted to use a PIT.
2.02 Operator training must consist of formal instruction by an experienced trainer/ operator, practical training and practical exercises by trainees and evaluation of trainee performance.
2.03 Training topics for PIT's:

a. Operating instructions, warnings and precautions for the types of PIT the operator will be authorized to operate,

b. Differences between the PIT and automobile
c. PIT controls and instrumentation
d. Engine or motor operation
e. Steering and maneuvering
f. Visibility (including restrictions due to loading)
g. Fork and attachment adaptation, operation, and use limitations
h. PIT capacity and stability
i. Any PIT inspection and maintenance that the operator will be required to perform
j. Refueling
k. Charging and recharging of batteries
l. Operating limitations
m. Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of PIT that the employee is being trained to operate.

2.02 Topics related to the workplace:

a. Surface conditions where the PIT will be operated.
b. Composition of loads to be carried and load stability.
c. Load manipulation, stacking, and unstacking.
d. Pedestrian traffic in areas where the PIT will be operated.
e. Narrow aisles and other restricted places where the PIT will be operated.
f. Use of door opening and closing devices.
g. Hazardous (classified) locations where the PIT will be operated.
h. Ramps and other sloped surfaces that could affect the PIT’s stability.
i. Closed environments and other areas where insufficient ventilation or poor PIT maintenance could cause a buildup of carbon monoxide or diesel exhaust.
j. Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation.

2.03 Written operator records of training and evaluations will be maintained of the following information:

a. Operator’s name
b. Date of the training and evaluation
c. Name of the trainer and evaluator
d. PIT operator will be retrained as required. PIT operators will receive refresher training if any of the following occur:
    i. The operator is involved in an accident or near-miss incident.
    ii. The operator is seen operating the PIT in an unsafe manner.
    iii. An evaluation shows the operator is not operating the PIT safely.
    iv. The operator is assigned to drive a different type or modified PIT.

v. Conditions in the workplace change that could affect safe operation of the PIT

2.04 PIT operator performance will be evaluated at each of these times:

a. As part of their initial training program.

b. After refresher training to determine the effectiveness of the training.

c. At least once every 3 years.

2.05 Operate PIT's safely and according to the manufacturer's guidelines. PIT operators must operate safety and perform all the following:

a. Obey all traffic regulations, including authorized workplace speed limits

b. Yield the right of way to ambulances, fire trucks, and other vehicles in emergency situations

c. Keep a safe distance of approximately 3 truck lengths from the PIT ahead

d. Look in the direction they are going and keep a clear view of their path of travel

e. Slow down and sound the horn at cross aisles and other locations where vision is obstructed

f. Do not pass other PIT's traveling in the same direction at intersections, blind spots, or other dangerous locations

g. Keep a safe distance from the edge of ramps or platforms while on any of the following:

i. Elevated docks

ii. Elevated platforms

iii. Freight cars

2.08 Operators keep PIT's under control at all times, including doing all of the following:

a. Drive at a speed that allows the PIT to be stopped safely.

b. Drive more slowly on wet or slippery floors.

c. Reduce speed to a safe level while turning.

d. Avoid driving over loose objects.

3.0 Carry loads safely on PIT's

3.01 You must make sure loads are stable, safe and within the rated load capacity of the PIT.

3.02 You must do both of the following when picking up a load:

a. Place the load engaging means under the load as far as possible.

b. Tilt the mast carefully backwards to stabilize the load.

3.03 Make sure not to tilt the load engaging means forward when it is elevated unless:

a. Picking up a load; or

b. Depositing a load on a rack or stack

3.04 You must do both of the following when traveling with a load:

a. Keep the load trailing if it obstructs the operator's forward view.

b. Travel with the load upslope when climbing or descending slopes of more than 10 percent.

3.05 You must do both of the following when climbing a slope:

a. Tilt the load and load engagement means backwards if necessary, to stabilize the load; and

b. Raise the load and load engagement means only as far as necessary to clear the surface.

3.06 You must make sure PIT'S with attachments are operated as partially loaded trucks, even if they are not carrying a load.

4.0 Meet these requirements when the operator leaves the normal operating position

4.01 You must make sure operators do the following when getting off the PIT:

a. Fully lower the load engaging means

b. Neutralize the controls

c. Set the brakes

4.02 You must make sure operators do the following when leaving a PIT unattended:

a. Fully lower the load engaging means

b. Neutralize the controls

c. Shut off power

d. Set the brakes

e. Block the wheels, if parked on an incline

Note: A PIT is unattended when the operator:

a. Is more than 25 feet away; or

b. Cannot see the PIT.

5.0 Meet these additional requirements when operating liquefied petroleum gas (LPG) fueled PIT's.

5.01 You must make sure you do not park PIT's near:

a. Sources of heat, open flames, or similar ignition sources; or

b. Open PIT's, such as service PIT's, that do not have adequate ventilation.

5.02 You must make sure PIT's stored inside a garage do not have:

a. A leak in the fuel system

b. Fuel containers filled beyond the maximum filling capacity.

6.0 Operators

6.01 PIT operators are responsible for the safe and proper use of PIT's including the use of any attachments.

6.02 Operators that question whether a PIT or attachment is being used or operated in a safe or proper manner must halt operations and seek clarification from the project superintendent.

6.03 Operators must only operate PIT's for which the operator is specifically trained, certified, and authorized.

6.04 Operators must:

a. Ensure the PIT is in safe operating condition upon delivery to the site.
b. Ensure the PIT is properly fitted with necessary auxiliary safety devices (back up alarm, fire extinguisher, signal lights, mirrors, operator's manual, etc.).
c. Ensure the equipment is properly maintained within the manufacturer's recommended. maintenance schedules. If vendor owned, ensure maintenance is being performed.
d. Ensure the equipment is promptly and adequately repaired by qualified personnel when the need arises.
e. Know and understand records of OEM approval and revised load rating data for any attachments or modifications to equipment.
f. Ensure that forklift capacity ratings are never exceeded and ensure the safe and proper use of the PIT, including the safe and proper use of any attachments used on the forks of the PIT
g. Perform documented pre-shift inspections, reporting any defect, deficiency, or required maintenance.
h. Strictly adhere to all safety operating practices.
i. Report any incidents or near misses associated with operations.

7.0 Required Inspections

7.01 PIT operators are responsible for conducting and documenting inspections for the equipment they operate and maintain.

7.02 Pre-Shift Inspections

a. Operators must perform a pre-shift inspection of the PIT prior to the beginning of each shift in which the truck will be utilized to ensure and verify the safe operating condition of the vehicle.

b. The pre-shift inspection must be documented by completing a Forklift Operator Daily Equipment Checklist.

*Reference the Forklift Operator Daily Checklist located in the Appendix.

c. The pre-shift inspection is conducted prior to starting the engine and involves a walk-around inspection which should include a visual inspection of all components of the PIT, warning decals and the slow-moving vehicle sign.

d. After the walk-around inspection, the operator must visually inspect and verify the safe and adequate condition of at least the following:

i. Front end/forks, carriage, mast/boom
ii. Wheels, tires, and lug nuts (condition/pressure)
iii. Hydraulics
iv. Fluid levels; leaks/hose condition
v. ROPS (rollover protective structures)/FOPS (falling objects protective structures)/ cab (check windows, step, door)
vi. Seat belt
vii. Fire extinguisher
viii. Operator's manual

7.03 Periodic Inspection

a. Periodic inspections must be performed in conjunction with the maintenance or service schedule of each PIT, normally expressed in days of operation or running hours.

b. Maintain inspection records in the project files.

8.0 Forklift Operating Procedures

8.01 Driving a PIT is fundamentally different from driving an automobile or other type of truck.

8.02 Some of the key differences are as follows

10.06 PIT's may be steered by the rear wheels
10.07 PIT's may be steered by all wheel steer or crab steer
10.08 PIT's steer more easily loaded than empty
10.09 PIT's are driven in reverse as often as forward
10.010 PIT's are sometimes steered with one hand

8.03 The center of gravity of PIT's is toward the rear and shifts to the front as forks are raised. Many PIT's are designed to have a very short rear wheel swing, which increases the risk of tipping, especially at excessive speeds.

a. Avoid sudden turns can cause a forklift to tip over, resulting in a serious injury or damage to the vehicle.

b. Momentum resulting from excessive speed can cause the center of gravity to shift dramatically.

c. Avoid speeding over rough surfaces can also cause tipping.

8.04 Operators shall follow safe driving procedures:

a. Avoid sudden stops, starts, turns, or changes in direction. Operate the controls smoothly, without jerking the steering wheel or hydraulic controls.
b. Never leave the operator's seat without first lowering the forks, setting the load down, setting the parking brake, and then either turning off the engine or placing the transmission in neutral.
c. Never attempt to operate any controls from outside the vehicle or from any position other than the operator's seat.
d. Keep all parts of your body inside the operator's compartment while operating the forklift.
e. Always wear a seat belt. Seat belt use is mandatory.
f. Riders/passengers are strictly prohibited.
g. Preplan routes to ensure there is sufficient overhead clearance for the boom.
h. Beware of power lines and maintain a safe distance.
i. Always watch for, and yield to, pedestrians.
j. Under all travel conditions, the truck must be operated at a speed that permits it to be brought to a stop in a safe manner.
k. Driving or load handling while using a cell phone is strictly prohibited.
l. Do not install any obstructions within the cab of the PIT that may interfere, in any manner, with the sight-vision of the operator. Do not cover any warning decals on the PIT.

8.05 Load Lifting and Carrying

a. PIT's have a maximum load capacity that is indicated on the rating plate. Refer to the load chart on the PIT to determine the PIT's capacity for your specific load and reach.

i. The center of gravity for a PIT must be kept somewhere within the triangle, or the

truck could tip over.
ii. The load and its position on the forks, as well as traveling speed and slopes, all affect the center of gravity.
iii. Only stable or safely arranged loads can be handled. Exercise caution when handling off-center loads that cannot be centered.
iv. Prior to traveling with a load, try a test pick to verify its stability.
v. Only loads within the rated capacity of the truck can be handled.
vi. Adjust long or high (including multiple-tiered) loads that may affect capacity.

8.06 Operators must observe the following to ensure safety when handling loads

a. Raise and extend boom only when the truck is stationary, leveled, and outriggers are down (when applicable). Forklifts are in their least stable position when the boom is raised to a high boom angle.
b. Always know the weight of the load before attempting to lift with the forklift. Never attempt to lift or move a load that might exceed the safe capacity of the truck.
c. Understand and account for forklift load handling limitations with respect to the following:
    I. Forklift rated capacity and operating range (boom length, height, angle)
    II. Travel speed
    III. Load center (distance from backrest to center of load)
d. When traveling with a load, slow down for turns, ramps, dips, uneven surfaces, and in congested areas.
e. Keep the load as low possible, raising it only as high as necessary to clear any obstructions. This is critical to maximize stability while turning or driving over uneven terrain.
f. Never carry a load above eye level. If the load is so large that it obstructs the operator's view, the operator must keep the load low to the ground and drive-in reverse. Note: Due to large blind spots on some forklifts, this will likely require a spotter to control traffic from other equipment and pedestrians. When a rough terrain forklift has no load or a light load, and the forks are raised above eye level, the machine becomes unstable
g. Travel on inclines, slopes, ramps, and downgrades only as follows
    i. Loaded forklift – with forks (and load) pointed uphill
    ii. Empty forklift – with forks pointed downhill
h. Fully engage the load with the forks. The load should contact the backrest of the carriage.
i. Ensure load stability before lifting. Restack or bind loads as necessary to prevent shifting.
j. Land loads on dunnage as necessary to facilitate withdrawing forks from under the load without upsetting the load, and to facilitate later movement by pallet jack, forklift, or crane with rigging, if necessary.

8.07 Leaving Forklifts Unattended

8.08 A forklift is considered unattended:

a. Anytime the operator is out of direct view of the forklift
b. When the operator can see the forklift, but is more than 25 feet away

8.09 When the forklift is unattended, the operator shall

a. Lower the forks to the ground.
b. Place all controls in neutral position.
c. Set the parking brake.
d. Turn off the engine.
e. Chock the wheels if parked on an incline or slope.

9. Carbon Monoxide and Nitrogen Dioxide Awareness

9.01 As precautionary measures, consider the following as applicable to site conditions:

a. Evaluate and plan for indoor operations of fuel powered forklifts.
b. Consideration must be given for other fuel-powered equipment that may be operating in the area and the cumulative effect on air quality.
c. Continuously monitor air quality with calibrated instruments to ensure effectiveness of fresh air ventilation
d. Consider fitting the equipment with exhaust scrubbers to filter and limit the quantity of toxic gas that may be discharged. Exhaust scrubbers should be considered as supplemental measures to control toxic gas levels and not as a stand-alone substitute for ensuring adequate fresh air ventilation.

10. Personal Protective Equipment (PPE)

10.01 A high visibility vest, shirt, or jacket must be worn to provide visibility to other equipment or traffic while the operator is outside the forklift performing other tasks, such as adjusting or securing loads to be handled.

11.0 Pedestrians

11.01 Always yield the right of way to pedestrians and sound the horn if necessary, to alert the pedestrians of the truck's presence.

11.02 Travelling in a forward direction is recommended when traveling without a load or with a load that does not block the view of the operator.

11.03 Scan to both sides when traveling forward.

11.04 If the load blocks the forward view, and traveling in reverse is necessary, sound the horn before proceeding.

11.05 A spotter/flagger is required when backing in congested areas.

11.06 Drive at slower speeds while backing to allow more time to react to an unsafe condition.

12.0 Maintenance

12.01 If a power-operated industrial truck is not in safe operating condition, it must be removed from

12.02 service. All repairs must be made by authorized personnel.

12.03 PIT's in need of repairs to the electrical system must have the battery disconnected before

12.04 such repairs.

12.05 PIT's must be examined before being placed in service.

EHS Forms and Documents

* ***Equipment Inspections: Forklift Daily Inspections***

Policy

Personnel will adhere to and follow safe practices when using grinding/ abrasive wheels.

Purpose

This section addresses safe work practices for the proper use and maintenance of grinding/ abrasive wheels.

Procedure

1.0 General Requirements

1.01 Supply grinding machines with sufficient power to maintain the spindle speed at safe levels under all conditions of normal operation.
1.02 Grinding machines must be equipped with safety guards.
1.03 The safety guard must cover the spindle end, nut, and flange projections. The safety guard must be mounted to maintain proper alignment with the wheel, and the strength of the fastenings must exceed the strength of the guard, except:

- where the work provides a suitable measure of protection to the operator, may be so constructed that the spindle end, nut, and outer flange are exposed; and where the nature of the work is such as to entirely cover the side of the wheel, the side covers of the guard may be omitted; and
- the spindle end, nut, and outer flange may be exposed on machines designed as portable saws.
- A Job Hazard Analysis is required when the use of a guard is not practicable to perform work and the work provides protection for the worker.

2.0 Use of abrasive wheels

2.01 Floor stand and bench mounted abrasive wheels, used for external grinding, must be provided with safety guards (protection hoods). The maximum angular exposure of the grinding wheel periphery and sides must be not more than 90°, except that when work requires contact with the wheel below the horizontal plane of the spindle, the angular exposure must not exceed 125°. In either case, the exposure must begin not more than 65° above the horizontal plane of the spindle. Safety guards must be strong enough to withstand the effect of a bursting wheel.

2.02 Floor and bench-mounted grinders must be provided with work rests which are rigidly supported and readily adjustable. You must adjust such work rests to a distance not to exceed 1/8 inch from the surface of the wheel. The work rest may be omitted when contacts of the work piece with the grinding surface below the horizontal plane of the spindle are necessary and unavoidable, or where the size or shape of the work piece precludes use of the work rest.

2.03 Cup type wheels used for external grinding must be protected by either a revolving cup guard or a band type guard in accordance with the provisions of the American National Standards Institute, B7.1-1978, Safety Requirements for the Use, Care, and Protection of Abrasive Wheels. Abrasive wheels must only be used on machines provided with safety guards, except the following:

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

offers protection or where the size does not exceed 3 inches in diameter by 5 inches in length.

- Metal centered diamond lapidary wheels either notched, segmented or continuous rim used with a coolant deflector, when operated at speeds up to 3500 surface feet per minute (S.F.P.M.).
- Type 1 wheels not larger than two inches in diameter and not more than 1/2 inch thick, operating at peripheral speeds less than 1800 SFPM when mounted on mandrels driven by portable drills.
    i. Type 1 reinforced wheels not more than 3 inches in diameter and 1/4 inch in thickness, operating at peripheral speeds not exceeding 9500 SFPM, provided that safety glasses and face shield are worn.
    ii. Valve seat grinding wheels.

2.04 Portable abrasive wheels used for internal grinding must be provided with safety flanges (protection flanges) meeting the requirements of subdivision (f) of this subsection, except as follows:
    i. When wheels two inches or less in diameter which are securely mounted on the end of a steel mandrel are used;
    ii. If the wheel is entirely within the work being ground while in use.

2.05 When safety guards are required, they must be so mounted as to maintain proper alignment with the wheel, and the guard and its fastenings must be of sufficient strength to retain fragments of the wheel in case of accidental breakage. The maximum angular exposure of the grinding wheel periphery and sides mst not exceed 180°.

2.06 When safety flanges are required, they must be used only with wheels designed to fit the flanges. Only safety flanges, of a type and design and properly assembled so as to ensure that the pieces of the wheel will be retained in case of accidental breakage, must be used.

2.07 You must closely inspect all abrasive wheels and ring-tested before mounting to ensure that they are free from cracks or defects.

2.08 Grinding wheels must fit freely on the spindle and must not be forced on. The spindle nut must be tightened only enough to hold the wheel in place.

2.09 All employees using abrasive wheels must be protected by eye protection equipment in accordance with the requirements of Part C of this chapter, except when adequate eye protection is afforded by eye shields which are permanently attached to the bench or floor stand.

2.010 Other requirements. All abrasive wheels and tools used by employees must meet other applicable requirements of American National Standards Institute, B7.1-1978, Safety Code for the Use, Care and Protection of Abrasive Wheels.

3.0 Methods to protect yourself when changing grinding wheels to avoid defects

3.01 First thing - disconnect the power cord.

3.02 To "ring" test a new grinding wheel, make sure it is clean and dry. Stand it on edge on a smooth hard surface. Then rap it gently as down in the diagram below using a non-metallic implement, such as a wooden handled screwdriver. The wheel should "ring" clear. If it sounds "dead" it should not be used and can be returned to your supplier for a full refund.

3.03 Suspend light wheels from hole by small pin or finger. Support heavy wheels on a clean hard floor. Rotate the wheels to ring test each quadrant.

3.04 Make certain the grinder spindle speed doesn't exceed the RPM rating of the new wheel.

3.05 The wheel must sit free on the spindle and still have adequate clearance for heat expansion during grinding operations, to avoid excessive pressure buildup.

3.06 Use the blotter per manufacturer's specifications.

3.07 Carefully replace all flanges and guards. The upper "tongue" guard should be adjusted to within 1/4" and the lower work rest to within 1/8" of the grinding wheel surface.

3.08 Before using, adjust eye shield and wear goggles!

Policy

Personnel will adhere to and follow safe practices when using hand and power tools..

Purpose

This section addresses safe work practices for the proper use and maintenance of hand and power tools.

Procedure

1.0 General requirements

1.01 Maintain all hand and power tools and similar equipment in safe condition.

1.02 All fixed power driven tools must be provided with a disconnect switch that can either be locked or tagged in the off position.

1.03 Employees should be trained and made aware of the safety guidelines required by the manufacturer, federal and state agencies.

1.04 Supervisors shall ensure that employees comply with this procedure.

1.05 Size or capacity of a tool should be matched to the requirements of the job.

1.06 Badly worn or damaged tools shall not be used.

1.07 When passing tools from one elevation to another beyond reaching distance, hand lines, or tool bags shall be used.

1.08 Operating handles of jacks should be removed from the jack, if possible, when the lift is completed and the handle is no longer needed.

1.09 Do not use steel measuring tapes or tapes with metal strands, including metal fish tapes and steel rules in close proximity to electrical energized equipment.

1.010 Chair hoists shall not be used to work on energized conductors.

1.011 Eye protection must be worn when using impact tools.

a. Employees shall:

- Follow the Hand and Power Tool Procedure.
- Wear proper PPE and proper protective clothing.
- Loose, frayed or ragged clothing, loose long hair, dangling jewelry (including earrings, chains, and wrist watches) shall not be worn while working around moving machinery, equipment or power tools.
- Ensure that hand and power tools are in safe operating condition and used properly for the job they were designed for.

b. Power tools shall be of a manufacture listed by a nationally-recognized testing laboratory for the specific application for which they are to be used.

- Guarding

  - Power tools designed to accommodate guards shall be equipped with functional guards when in use.
  - Belts, gears, reciprocating, rotating, and moving parts of equipment shall be guarded if exposed to contact by employees or create a hazard.
- Employees shall be provided with and use personal protective equipment necessary to protect them from associated hazards such as flying debris, splashing, dusts, fumes, vapors.
- Electric power operated tools shall either be approved double-insulated type or effectively grounded.

2.0 Use, Inspection, and Maintenance

2.01 Hand and power tools shall be used, inspected, and maintained in accordance with the manufacturer's instructions and recommendations and used only for the purpose for which designed.

2.02 A copy of the manufacturer's instructions and recommendations shall be maintained with the tools.

2.03 Never use a tool as a substitute for the proper tool required for a job.

3.0 Hand tools

3.01 The use of unsafe hand tools is not permitted.

3.02 Do not use wrenches, adjustable, pipe, end, and socket when jaws are sprung or worn to the point slippage occurs.

3.03 Do not cut nails with an axe.

3.04 Keep impact tools, such as drift pins, wedges, and chisels, free of mushroomed heads.

3.05 Keep the wooden handles of tools free of splinters or cracks and must be kept tight in the tool.

4.0 Power-operated hand tools

4.01 Power tools (pneumatic, hydraulic, or electrical) shall not be used when any part of the device is defective.

4.02 Always wear suitable eye protection equipment when using power tools.

4.03 When handling rotating tools such as drills, impact wrench, grinders, buffers, torque wrenches and similar equipment, care must always be taken to keep the tools under control.

4.04 Use only grinding wheels or discs with speed ratings, which match or exceed the speed rating of the motor.

4.05 When operating a drill press, use a clamp, jib, or vise to hold down all pieces.

4.06 Gasoline powered equipment shall be shut down while being refueled. Hand and feet should be

clear of rotating parts. The spark plug shall be disconnected when making minor repairs or adjustments.

4.07 When air or hydraulic lines are to be uncoupled, care should be taken to first shut off supply lines and drain off remaining pressure before uncoupling.

4.08 Electrical extension cords shall be maintained in a safe condition and shall not have exposed metal clad sockets and be provided with a ground wire circuit.

4.09 Portable lamps shall be equipped with bulb guards as required by manufacturer.

4.010 When not in immediate use, care should be taken to place power tools in such a position to prevent accidental starting.

4.011 The use of power driven augers shall be closely supervised.

4.012 Electric power operated tools must be approved double-insulated type or grounded.

4.013 The use of electric cords for hoisting or lowering tools is not permitted.

5.0 Pneumatic power tools

5.01 Secure by threaded couplings, quick disconnect couplings or 100 pound tensile strength safety chain or equivalent across each connection to prevent the tool or hose connections from becoming accidentally disconnected.

5.02 Securely install safety clips or retainers and maintain on pneumatic impact tools.

5.03 Peumatically driven nailers, staplers, and other similar equipment provided with automatic fastener feed, must have a safety device on the muzzle, unless the muzzle is in contact with the work surface.

5.04 Do not exceed manufacturer's safe operating pressure for hoses, pipes, valves, filters, and other fittings.

5.05 Never use hoses for hoisting or lowering tools.

5.06 prevent pulling of the trigger to prevent release of the paint or fluid until the safety device is manually released. must be provided.

6.0 Fuel powered tools

6.01 Stop all fuel powered tools while being refueled, serviced, or maintained. Follow applicable requirements in enclosed spaces.

Purpose

The purpose of this section is to establish guidelines to protect the structure and prevent fire hazards from heating activities.

Policy

This guideline applies to all Foushée jobsites.

Procedure

Contact Operations Manager and Foushée Safety Department when planning to use direct fired heaters.

Note: Direct fired heaters for use in wood framed structures will require a work plan and authorization from the Operations Manager.

1.0 General Requirements

1.01 Limit the use of direct fired heaters.
1.02 The Operations Manager will identify the builders risk requirements for operating direct fired heaters.
1.03 Contact your heat vendor for guidance on safety, proper storage, operation, fire prevention, and ventilation requirements.
1.04 Request an electrical evaluation by a qualified electrician of the existing electrical and if the system can accept the load of the proposed heat units, dehu's and fans. Evaluate GFI requirements.
1.05 Lighted furnaces, heaters or torches should not be left unattended and shall never be placed in trucks.
1.06 An attendant is requred at all times while direct fired heat units are in operation. Review requirements with Operations Manager.
1.07 Fire prevention shall be addressed when kerosene or propane direct fired heaters are planned to be used.
1.08 Torches and indoor direct fired heaters require a hot work permit and work plan.
1.09 Portable fire extinguishers shall have a current annual, inspected monthly and placed within 10 feet of the heat unit.
1.010 Heater units will need to sit on at least a sheet of sheetrock (non-combustible material) and not directly on wood surface.
1.011 No gasoline fueled furnaces or torches shall be authorized.
1.012 Should be well shielded in windy environment.
1.013 Adequate ventilation in accordance with manufacturer's specifications must be provided.
1.014 Do not store compressed propane tanks in direct sunlight. Adhere to building distance clearances for propane storage.

Purpose

The purpose of this program is to establish rules regarding the proper design and safe use of stairways and ladders.

Scope

This applies to all Foushée and Associates Company, Inc work sites.

1.0 Definitions

"Cleat" See "rung."

"Combination ladder" See "special purpose ladder."

"Competent person" Is an individual knowledgeable of ladders, including the manufacturer's recommendations and instructions for the proper use, inspection, and maintenance. A competent person is capable of identifying existing and potential ladder hazards; has the authority to take prompt corrective action to eliminate those hazards; and is knowledgeable of the rules contained in this section regarding the installation, use, inspection, and maintenance of ladders.

"Equivalent" Alternative design, material, or method to protect against a hazard. You must demonstrate it provides an equal or greater degree of safety for employees than the method, material or design specified in the rule.

"Extension ladder" A non-self-supporting portable ladder which is adjustable in length.

"Failure" The ladder or ladder component loses the ability to carry the load, breaks, or separates into component parts.

"Fastening" A fastening is a device to attach a ladder to a structure, building, or equipment.

"Grab bars" An individual horizontal or vertical handhold installed to provide access above the height of the ladder.

"Job-made ladder" A ladder that is made, not commercially manufactured, to fit a specific job situation. They are for temporary use until a particular phase of construction is completed or until permanent stairways or fixed ladders are ready to use. **Contact Foushée Safety Department for job-made ladder requirements.**

"Ladder" A device having steps, rungs, or cleats that can be used to climb or descend.

"Ladder safety device" Any device, other than a cage or well, designed to eliminate or reduce

the possibility of falling from a ladder. A ladder safety device usually consists of a carrier, safety sleeve, lanyard, connectors, and body harness.

"Ladder type" The designation that identifies the maximum intended load (working load) of the ladder.

Ladder types are as follows:

Duty Rating	Ladder Type	Use	Maximum Intended Load (pounds)
Extra Heavy-Duty	IA	Industry, utilities, contractors	300
Heavy-Duty	I	Industry, utilities, contractors	250
Medium-Duty	II	Painters, offices, light maintenance	225
Light-Duty	III	General household use	200

“Landing” Any area such as the ground, roof, or platform that provides access or egress to a ladder.

“Manhole steps” Steps that are individually attached to, or set into, the wall of a manhole structure.

“Maximum intended load” The total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a ladder or ladder component at any one time. Sometimes referred to as working load.

“Mobile” Manually propelled or moveable.

“Mobile ladder stand (ladder stand)” A mobile, fixed height, self-supporting ladder that usually consists of wheels or casters on a rigid base and steps leading to a top step. A mobile ladder stands also may have handrails and is designed for use by one employee at a time.

“Mobile ladder stand platform” A mobile fixed-height, self-supporting unit having one or more standing platforms that are provided with means of access or egress.

“Pitch” The included angle between the horizontal and the ladder, measured on the opposite side of the ladder from the climbing side.

“Portable ladder” A ladder that can be readily moved or carried. **Portable ladders shall have nonconductive siderails if they are used where the employee or the ladder could contact exposed energized parts.**

“Qualified” Describes a person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project.

“Reinforced plastic” A plastic that has high-strength fillers embedded in the base resin to increase strength.

“Reinforced plastic ladder” A ladder whose side rails are reinforced plastic. The crosspieces, hardware, and fasteners may be made of metal or other suitable material.

“Rung” A ladder crosspiece used in climbing or descending. Also called a cleat or step.

“Single ladder” A non-self-supporting portable ladder, nonadjustable in length, consisting of one section. The size is designated by the overall length of the side rail.

“Single-rail ladder” A portable ladder with crosspieces mounted on a single rail. Single-rail ladders are prohibited from use.

“Special-purpose ladder” A portable ladder that by design can be used as a stepladder, extension ladder, trestle ladder, stairway ladder, etc., in order to adapt the ladder to special or specific uses. The components of a combination ladder also may be use separately as a single ladder.

"Step See "rung."

"Stepladder" A self-supporting portable ladder, nonadjustable in length, with flat steps and hinged at the top. The size is designated by the overall length of the ladder measured along the front edge of the side rails.

"Step stool" A self-supporting, portable ladder that has flat steps and side rails. Stepstools include only those ladders that have a fixed height, so not have a pail shelf, and do not exceed thirty-two inches (81 cm) in overall height to the top cap, although side rails may extend above the top cap. A stepstool is designed so an employee can climb and stand on all the steps and the top cap.

"Trestle ladder" A self-supporting portable ladder, nonadjustable in length, consisting of two sections hinged at the top to form equal angles with the base. The size is designated by the length of the side rails measured along the front edge.

"Working length" The length of a non-self-supporting ladder, measured along the rails, from the base support point of the ladder to the point of bearing at the top

Procedure

2.0 Ladder Selection

2.01 Choose the correct type of ladder able to hold the weight of the person and his/her tool belt. An extension ladder may be required for high work. Use a stepladder when you need a freestanding ladder or one with a bucket or pail shelf.

2.02 Determine how much weight will be applied to the ladder. Never exceed the manufacturer's maximum intended load, which is the total load of the person's weight, equipment, tools, and materials that will be applied to the ladder or ladder component at any one time. Keep this in mind when purchasing ladders.

The maximum intended/working load for each ladder type (excluding orchard ladders), is as follows:

Duty Rating	Ladder Type	Maximum Intended Load (in pounds)
Extra Heavy	IAA	375
	IA	300
Heavy	I	250
Medium	II	225
Light	III	200

Don't subject a ladder to a load greater than its duty rating.

3.0 Training

3.01 Employees will be trained to recognize ladder hazards and procedures to minimize these hazards.

3.02 A competent person will train employees that use ladders on the following topics:

a. The proper construction, use, placement, and care in handling ladders.

b. The maximum intended load capacities of ladders that are used.

c. Ladder safety elements within this section.

3.03 Employees will be retrained as necessary to make sure they know and understand ladder hazards and safe procedures.

4.0 Condition, inspection, and repair

4.01 Maintain ladders in a safe condition.

4.02 Maintain portable ladders in good, usable condition that includes, but is not limited to:

a. Joints between the steps or rungs and the side rails are tight.

b. Rungs, cleats, or steps are not bent, broken, or missing.

c. Side rails are not bent, broken, or split.

d. All bolts and rivets are in place and secure.

e. Hardware, fittings, and accessories are securely attached and working properly.

f. Ropes are not frayed or badly worn.

g. Moveable parts operate freely without binding or excessive play.

h. Safety feet and other auxiliary equipment are not excessively worn.

i. Metal components are not corroded.

j. There are no other faulty or defective components.

4.03 A competent person will inspect a ladder for visual defects:

a. At the beginning of each shift/ prior to use.

b. After any occurrence that could affect safe use.

c. Use ladder inspection criteria (Table 1)

d. Inspect after any other occurrence that could affect safe use.

- Any ladder with structure damage or other hazardous defect is:
    1. Marked to identify it as defective and tagged “Do Not Use”, and
    2. Removed from service.

4.04 Wooden ladders should not be coated with an opaque covering except for identification and warning information that may be placed on a side rail.

4.05 Step stools should have a minimum clear width of ten and one-half inches (26.7 cm).

Table 1 Ladder Inspection Criteria	
When the ladder is:	**Do the following:**
First placed into service as necessary while in service	Inspect the ladder for visible defects, inc not limited to: 1. Working parts; and 2. Rung or step connections to the side
Damaged by impact or tips over	1. Visually inspect the ladder for dents, cracks or splits 2. Check: a. Rung or step connections to the s b. Hardware connections. c. Rivets for shear damage. d. All other components.
Exposed to excessive heat such as a fire	1. Visually inspect the ladder for damag 2. Test for deflection and strength chara using the "in-service use tests" conta appropriate ANSI standard.

EXEMPTION:

Job-made wooden ladders are not to be sub load or impact tests. Those tests may weak lumber components or fasteners, causing hi damage that could result in sudden failure d use.

5.0 Housekeeping

5.01 Keep the area around the top and bottom of ladders clear of debris and obstructions.

5.02 Electrical cords, air hoses, welding leads and other obstructions will not impede access at the top or bottom of access.

5.03 Ladders located in an area susceptible to mud, water or snow will be inspected prior to use and relocated as needed.

5.04 Provide a suitable access point in areas that are muddy such as crushed stone and/or grating at the bottom to prevent slipping while climbing.

6.0. Safe Ladder Practices – General

6.01 Use ladders on stable and level surfaces.

6.02 Never use a ladder or any other tools within 10 feet of energized electrical equipment such as power lines.

6.03 Only one person is allowed on a ladder at a time.

6.04 Always face the ladder when ascending and descending.

6.05 Do not stand on the top two rungs of any ladder.

6.06 Footwear should have clean soles made of a non-skid material.

6.07 Keep centered on the ladder. Use the "Belt buckle rule", your belt buckle should always remain between the two side rails. Never lean away from the ladder because you can cause it to topple.

6.08 Never move a ladder while you are on it.

6.09 Move slowly and carefully on a ladder.

6.010 Ladders are not to be painted except for numbering purposes.

6.011 Do not use ladders for skids, braces, workbenches, or any purpose other than climbing. Use ladders only for the purpose they were designed

6.012 When you are ascending or descending a ladder, do not carry objects that will prevent you from grasping the ladder with both hands.

6.013 If you must place a ladder over a doorway, barricade the door to prevent its use and post a warning sign.

6.014 Do not jump from a ladder when descending.

6.015 All joints between steps, rungs, and side rails must be tight.

6.016 Safety feet must be in good working order and in place.

6.017 Rungs must be free of grease and/or oil.

6.018 Ladders must not be loaded beyond the manufacturer's rated capacity.

6.019 Stay off outdoor ladders during bad weather such as rain, wind, or lightning.

7.0 Working on ladders above protection of guardrail system

7.01 Where workers are working on platforms or ladders above the protection of the guardrail system, the following options must be followed:

a. Increase the height of the top rail of the guardrail system an amount equal to the height of the ladder.

b. A personal fall restraint or fall arrest system.

7.02 If the height of the guardrail system is not increased, then another fall protection system must be implemented from the following items:

a. A personal fall restraint system

b. A personal fall arrest system

c. A safety net system

d. A catch platform; or

e. A warning line system

f. A good rule of thumb for ladders near guardrails is the fall distance plus number of rungs up the ladder

Alternative Method: Or add the fall distance from guardrail + total height of ladder to define your ladder fall radius to eliminate a potential fall hazard. Example: 4 ft away + 12 ft (stepladder) = 16 ft away the ladder can be set up.

8.0 Stepladders

8.01 Do not place tools or materials on the steps or platform of a stepladder.

8.02 Do not use the top two steps of a stepladder as a step or stand.

8.03 Always level all four feet.

8.04 Make sure stepladders are fully open with the spreader bars in a down, locked position before using it.

8.05 Do not use a stepladder as a straight ladder.

8.06 Never use an aluminum ladder or any other tools within 10 feet of energized electrical equipment such as power lines.

8.07 Never set up a ladder on unstable surfaces or objects (i.e., boxes, barrels) to gain additional height.

8.08 Do not use stepladders as straight ladders.

8.09 Do not stand or step on the last step, the top cap or the bucket or pail shelf.

8.010 Ladders made by fastening cleats across a single rail are prohibited.

8.011 Follow manufacturer's recommendations for rated load capacity.

8.012 Make sure stepladders are set up on a firm, level surface.

8.013 If you must place a ladder front of a doorway that opens toward the ladder, make sure you block the door open, close and lock the door, or guard the door to prevent a person from opening the door.

9.0 Straight type or extension ladders

9.01 All straight or extension ladders must extend at least three feet beyond the supporting object when used as an access to an elevated work area.

9.02 After raising the extension portion of a two or more-stage ladder to the desired height, check to ensure that the safety dogs or latches are engaged.

9.03 All extension or straight ladders must be secured to prevent displacement and tied off at the top.

9.04 All ladders must be equipped with safety (non-skid) feet.

Fig 9.05

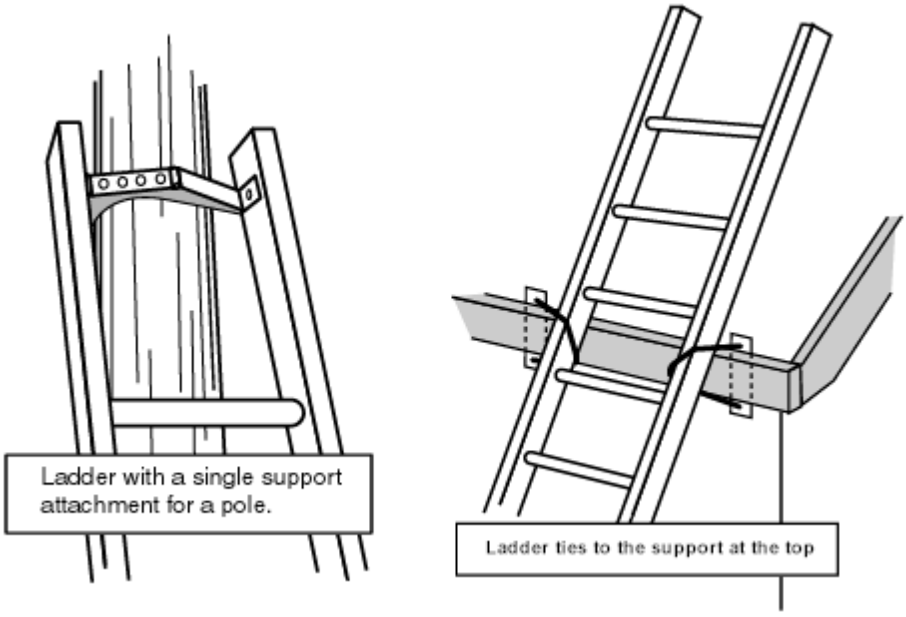
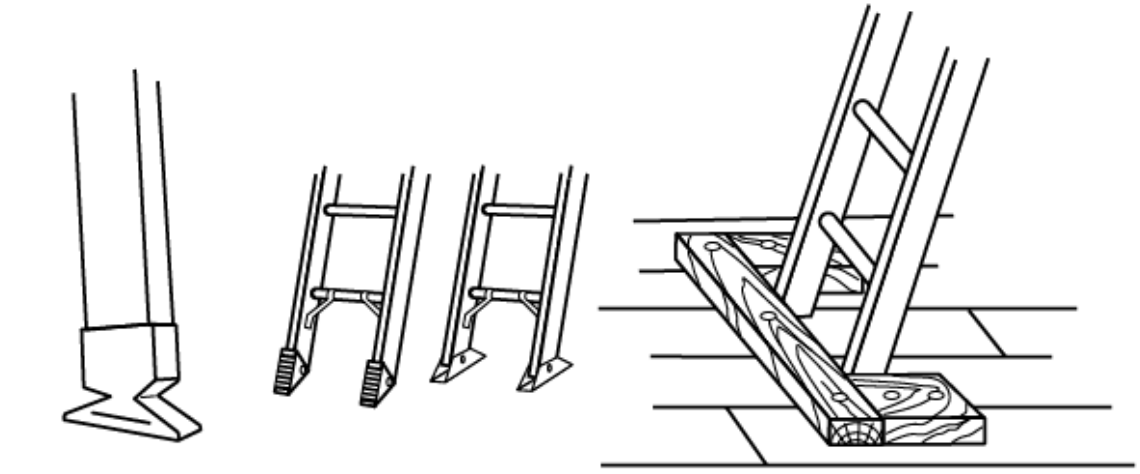


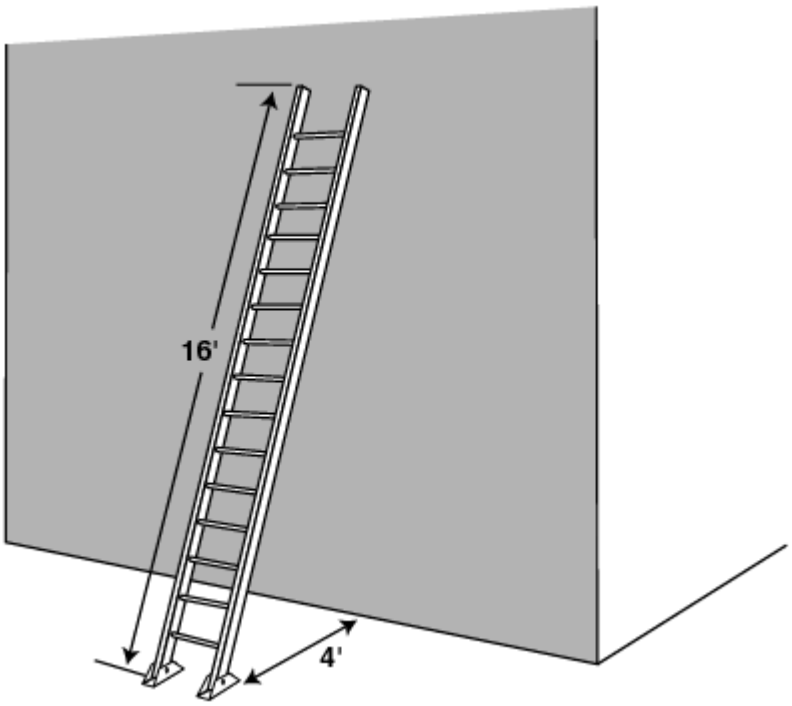
Fig 7.05



Rubber Safety Feet Spikes Cleats Nailed to the Floor

Ladders with supports on the bottom.

10.0 Portable straight or extension ladders must be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder.



11.0 Exposed electrical hazards

11.01 Use ladders with nonconductive side rails where the ladder could contact uninsulated, energized electric lines or equipment.

12.0 Job Made Ladders

12.01 A competent person will build job-made ladders in accordance with WAC 296-876, Job-Made Wooden Ladders Design and Construction.

12.02 Job-built ladder repairs must restore the ladder to a condition meeting its original design criteria before the ladder is returned to service.

12.03 Single cleat ladders, for use by 24 or fewer employees, will not exceed 30 feet in length.

12.04 Width will be 16 to 20 inches at the top, side rails will be parallel or flared top to bottom not more than ¼ inch for each two feet of length.

12.05 2 inch by 4 inch lumber will be used for side rails up to 16 feet long; 2 inch by 6 inch lumber will be used for ladders 16 to 30 feet long.

12.06 Double cleat ladders, for use by 25 or more employees or for two-way traffic; will not exceed 24 ft.

12.07 Side and middle rails will be 2 inch by 4 inch lumber up to 12 feet in length; 2 inch by 6 inch lumber from 12 to 24 feet in length.

12.08 Cleats will be:

a. set into the edges of the side rails half-inch or have filler blocks placed between them.

b. secured with three 10d common wire nails (or equivalent). Double headed nails will not be used.

c. spaced 12 inches top to top.

12.09 When using three-quarter inch thick cleats, the width will be determined by the length of the cleat as shown in the next figure:

Length of Cleat (inches)	Width (inches)
Up to and including 20 inches	Three and a half (3.5”)
Over 10 inches and up to and including 30 inches	Three and three-quarters (3.75”)

Wood materials acceptable for three-quarter inch thick cleats		
Oregon Ash	Hackberry	Red Oak
Pumpkin Ash	Hickory	White Oak
White Ash	Holly	Pecan
Beach	Western Larch	Persimmon
Birch	Locust	Southern Yellow Pine
Rock Elm	Hard Maple	Tamarack
Soft Elm	Red Maple	

13.0 Stairways

13.01 Design, Construction and Maintenance

a. Stairways that will not be a permanent part of the structure on which construction work is being performed must have landings at every 12 feet or less of vertical rise.

b. Each landing must measure at least 30 inches long by 22 inches wide.

c. Stairs must be installed at an angle between 30 degrees and 50 degrees from horizontal.

d. Riser height and tread depth must be uniform within each flight of stairs, including any foundation structure used as one or more treads of the stair. In any stairway system, variations in riser height or tread depth must not be more than one and a quarter inch.

e. All parts of stairways must be free of hazardous objects, such as protruding nails and slippery conditions on stairways must be eliminated.

f. Metal pan stairs shall not be used until the pans are filled to prevent a tripping hazard.

g. Any project specific requirements for this section are listed here.

14.0 Stair Rails and Handrails

14.01 Stairways having four or more risers or rising more than 30 inches, whichever is less, will have at least one handrail and one stair rail along each unprotected side or edge.

14.02 Design and construction specification will be as follows:

a. Stair rails must be at least 36 inches high; handrails will be between 30 and 37 inches.

b. When the top edge of a stair rail also serves as a handrail, its height cannot be more than 37 inches nor less than 36 inches.

c. For all such height provisions, measure from the support surface of the stair rail to the surface of the tread in line with the face of the riser at the forward edge of the tread.

d. Stair rails must include mid-rails, screens, mesh, intermediate vertical members or equivalent intermediate structural members between the top rail and the stair steps.

e. Mid-rails must be located halfway between the top edge of the stair rail and the stair steps. Screens or mesh must be extended from the top rail to the stair step and along the entire opening between top rail supports. Intermediate vertical members and other equivalent structural members must be not more than 19 inches apart.

f. Handrails and the top stair rail must withstand a force of at least 200 pounds applied within two inches of the top edge, in any downward or outward direction.

g. Handrails that will not be a permanent part of a structure must have a minimum clearance of three inches between the handrail and walls, stair rail and other objects.

h. Handrails and stair rails must be smooth surfaced to prevent injury from punctures or lacerations and from snagging clothes.

i. No duplex nails are permitted in stairway construction.

Purpose

This section applies to the prevention of hazards associated with material storage and general requirements for storage.

Policy

This applies to all Foushée and Associates Company, Inc work sites.

Procedure

1.0 General

1.01 Stack, rack, block, interlock, and secure materials stored in tiers to prevent sliding, falling or collapse.

1.02 Post maximum safe load limits in storage areas, except for floor or slab on grade as determined by a qualified person. Do not exceed maximum safe loads.

1.03 Maintain aisles and passageways and keep clear to provide for free and safe movement of material handling equipment or employees.

1.04 Plan locations of material storage to avoid creating a hazard to employees, traffic, or the public.

2.0 Material storage

2.01 You must not place within 6 feet of any hoist way or inside floor openings, nor within 10 feet of an exterior wall which does not extend above the top of the material stored.

2.02 Stack bagged materials by stepping back the layers and cross-keying the bags at least every 10 bags high.

2.03 Do not pile cement and lime bags more than 10 bags high except when stored in bins or enclosures built for the purpose of storage.

2.04 Do not store materials on scaffolds or runways in excess of supplies needed for immediate operations.

2.05 Brick stacks must not be more than 7 feet in height. When a loose brick stack reaches a height of 4 feet, it must be tapered back two inches in every foot of height above the 4-foot level.

2.06 Do not stack brick, for storage purposes, on scaffolds or runways.

2.07 When blocks are stacked inside a building, distribute the piles and do not overload the floor.

2.08 Do not drop blocks or throw from an elevation. Use chutes.

2.09 Lumber

a. Remove nails from lumber before stacking.

b. Stack lumber on level and solidly supported sills.

c. Stack lumber to be stable and self-supporting.

d. Lumber stacks must not exceed 20 feet in height and lumber to be handled manually must not be stacked more than 16 feet high.

2.010 Carefully pile structural steel to prevent members rolling off or the pile toppling over.

2.011 Stack corrugated and flat iron in flat piles, with the piles not more than 4 feet high with spacing strips between each bundle.

3.0 Disposal of waste materials

3.01 When materials are dropped more than 20 feet to any point lying outside the exterior walls of the building, use an enclosed chute of wood, or equivalent material.

3.02 When debris is dropped without the use of chutes, the area below must be completely enclosed with barricades.

a. Barricades 42 inches high and not less than 20 feet back from the projected edge of the opening above.

b. Post warning signs of the hazard of falling materials at each level. These must remain in place until debris handling ceases.

c. Waste debris will not be removed from the disposal site until all handling ceases from above.

d. A spotter may be necessary at each area to keep clear of traffic.

3.03 Remove scrap lumber, waste material, and rubbish from the immediate work area as the work progresses and after handling ceases from above.

3.04 Keep all solvent waste, oily rags, and flammable liquids in fire resistant covered containers until removed from the worksite.

Purpose

The purpose of this section is to establish safe operations and use of motor vehicles on construction jobsites.

Policy

This policy applies to all Foushée jobsites.

Procedure

1.0 General Requirements

- All cab glass must be safety glass, or equivalent, that introduces no visible distortion.
- Maintain good visibility by the suppression of dust, through the periodic application of oil or water to the grade surface, as required.
- No equipment, vehicle, tool, or individual must operate within 10 feet of any power line or electrical distribution equipment.
- The parking brake must be set when equipment is parked. Equipment parked on inclines must have the wheels chocked and the parking brake set.
- Parking brake systems must be maintained in operable condition.
- Do not leave a vehicle unattended with a running motor.
- The motor must be stopped.
- Engage parking brake and turn wheels into curb or berm when parked on an incline.
- All vehicles must have brake lights in operable condition.
- During lower visibility conditions, at least two headlights and two taillights.
- All vehicles must have an operable audible warning device (horn).
- Prohibit the use of any motor vehicle equipment that has an obstructed view to the rear, unless the vehicle has one of the following:
    a. Automatic reverse signal alarm audible above the surrounding noise level and audible no less than 15 feet from the rear of the vehicle; or
    b. Backed with an observer signaling it is safe to do so.
    c. An observer is required if surrounding noise level is louder than the reverse signal alarm.

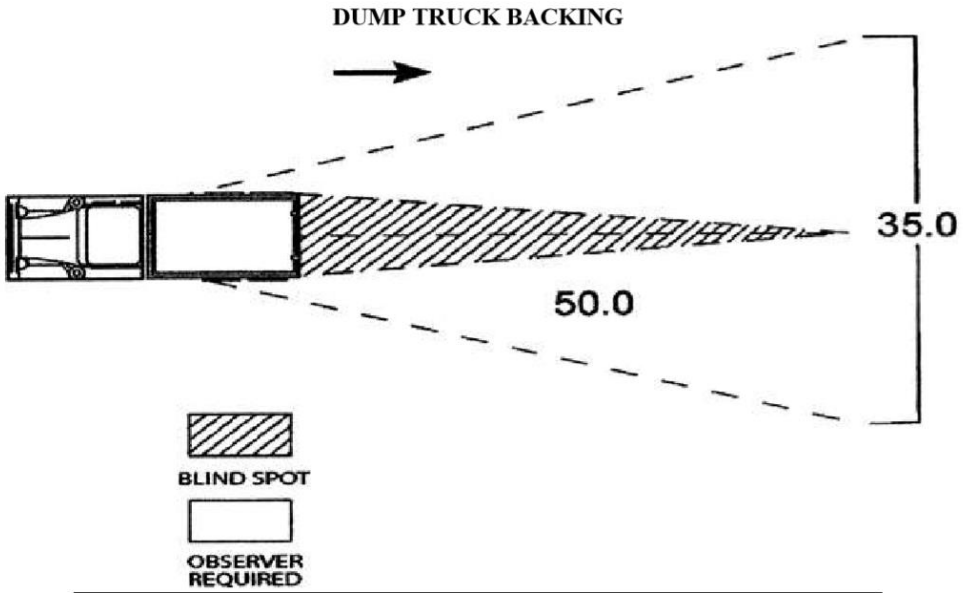
2.0 Operating dump trucks in reverse.

2.01 Must have an automatic reverse signal alarm:

- Audible above the surrounding noise level; and
- Audible no less than 15 feet from the rear of the vehicle.
- Before backing, the driver must determine no one is currently in the backing zone and it is

reasonable to expect that no employee(s) will enter the backing zone while operating the dump truck in reverse.

- If employee(s) are in the backing zone or it is reasonable to expect that an employee(s) will enter the backing zone, make sure the truck is backed up only when:
- An observer signals that it is safe to back; or
- A video camera is equipped that provides the driver a full view behind the truck.



3.0 Requirements

3.01 All vehicles with cabs must be equipped with windshields; powered wipers; and rear view mirrors. Cracked and broken glass must be replaced.

3.02 Vehicles operating in areas or under conditions that cause fogging or frosting of the windshields must be equipped with operable defogging or defrosting devices.

3.03 Tools and material must be secured to prevent movement when transported in the same compartment as employees.

3.04 Vehicles used to transport employees must be secured and adequate for the number of employees.

3.05 Seat belts and anchorages must be installed in all motor vehicles and used by occupants.

3.06 Trucks with dump bodies or raisable platforms, beds, or boxes must be equipped with positive means of support, permanently attached capable of being locked in position to prevent accidental lowering of the body while maintenance or inspection work is being done.

3.07 Operating levers, controlling hoisting or dumping devices on haulage bodies, must be equipped with a latch or other device, such as a detent switch, which will prevent accidental starting or tripping of the mechanism.

3.08 Trip handles for tailgates of dump trucks must be so arranged that, in dumping, the operator will be in the clear.

3.09 All rubber-tired motor vehicle equipment must have fenders.

3.010 Mud flaps may be used whenever motor vehicles are not designed for fenders.

4.0 Inspections

4.01 Check all vehicles in use at the beginning of each shift to make sure the following parts, equipment, and accessories are in safe operating condition and free of apparent damage.

- Service brakes;
- Parking system (hand brake);
- Emergency stopping system (brakes);
- Tires;
- Horn;
- Steering mechanism;
- Coupling devices;
- Seat belts;
- Operating controls; and
- Safety devices.
- Lights;
- Reflectors;
- Windshield wipers;
- Defrosters;
- Fire extinguishers;
- Steps and handholds for vehicle access; and
- Any other necessary equipment.
- All defects must be corrected before the vehicle is placed in service.

Purpose

The purpose of this section is to establish means and methods for proper safe lifting and carrying of materials.

Policy

This policy applies to all Foushe jobsites.

Procedure

1.0 Lift properly with your leg and not your back.

1.01 Stand close to the load, with feet shoulder width apart and firmly on the floor. Employees should avoid lifting while the body is twisted or off balance. If your legs cannot lift it, it is too heavy for you.

1.02 Bend at the hips and knees and squat close to the load; keep your back straight.

1.03 Grip the load firmly with both hands, not just your fingers.

1.04 Bring the load close to your body, keeping your weight centered over your feet.

1.05 Stand slowly with your back straight and let your legs push you up.

2.0 Avoid Back Strain While Carrying

2.01 Carry the load waist high.

2.02 Be sure you have a good grip and you have clear vision of where you are traveling.

2.03 Walk slowly, taking small steps.

2.04 Stop along the way and rest if you need it.

2.05 Move your feet to turn direction.

2.06 Don't twist! That's a major cause of injury.

2.07 Bulky loads should be carried in such a way as to permit an unobstructed view ahead. Caution should be exercised while moving over rough or slippery surfaces.

2.08 When two or more persons are lifting or pulling together, one person should give the signal for the group to coordinate all movements.

2.09 Pipes, conduits, reinforcing rods and other conducting materials should not be carried on the shoulders near exposed live electrical equipment or conductors.

Purpose

The purpose of this section identifies methods and procedures for preventing injuries within the office environment on a jobsite or main office.

Policy

This policy applies to all Foushée field offices and company office activies.

Procedure

1.0 General Requirements

1.01 Loose objects such as paper clips, erasers, pencils, etc., should not be left on stairs or floors.

1.02 Extension cords shall not be strung across aisles or walkways where people may trip or fall.

1.03 Do not leave desk or file drawers or desk slides open.

1.04 Do not stand on boxes, chairs or other makeshift supports to reach objects overhead. Use an approved stepladder.

1.05 Doors should be opened slowly to avoid striking anyone on the other side.

1.06 Use the handrail when going up or down stairways.

1.07 Use extreme care in opening file cabinet drawers. Opening of overloaded upper drawers, particularly more than one at a time, may tip the cabinet. Where several cabinets are used at one location, they should be fastened together.

1.08 Straight pins should not be used to fasten papers together. Use paper clips or a stapling device.

1.09 Pointed objects such as uncapped fountain pens, knives, or scissors, should not be carried with the point exposed in the pockets, attached to the clothing, or through congested aisles or work areas.

1.010 Avoid opening envelope with fingers and sliding hands along edges of paper.

1.011 Safety razor blades should not be used for cutting paper, sharpening pencils or other cutting operations. Do not keep razor blades or other sharp instruments loose in desk drawers.

1.012 Keep fingers away from cutting edge of paper cutters. The cutting knife on hand operated cutters should always be in the closed position when not in use.

1.013 Be cognizant of loose clothing when using shredder.

1.01 Request authorization for use of space heaters and shut off when not in use and at the end of the day.

Purpose

This section provides safety requirements for a powder actuated fastening tool or machine which propels a stud, pin, fastener, or other object for the purpose of affixing it by penetration to another object.

Scope

This applies to all Foushée jobsites.

Procedures

1.0 Operation

1.01 Powder-actuated tools must be operated only by trained and authorized employees.

1.02 When using powder-actuated tools, an employee must wear suitable ear, eye, and face protection.

1.03 The user must select a powder level - high or low velocity - that is appropriate for the powder actuated tool and necessary to do the work without excessive force.

1.04 The muzzle end of the tool must have a protective shield or guard centered perpendicular to and concentric with the barrel to confine any fragments or particles that are projected when the tool is fired.

1.05 A tool containing a high-velocity load must be designed not to fire unless it has this kind of safety device.

1.06 To prevent the tool from firing accidentally, two separate motions are required for firing.
a. First motion is to bring the tool into the firing position
b. Second motion is to pull the trigger

1.07 The tool must not be able to operate until it is pressed against the work surface with a force of at least 5 pounds (2.2 kg) greater than the total weight of the tool.

2.0 Misfires

2.01 If a powder-actuated tool misfires, the user must hold the tool in the operating position for at least 30 seconds before trying to fire it again. If it still will not fire, the user must hold the tool in the operating position for another 30 seconds and then carefully remove the load in accordance with the manufacturer's instructions.

2.02 The bad cartridge should be placed in a dedicated bucket labeled "powder actuated cartridges" or similar.

2.03 Partially fired cartridges should be fired or disposed of properly.

2.04 If the tool develops a defect during use, it should be tagged and must be taken out of service immediately until it is properly repaired.

3.0 Safety precautions

3.01 Safety precautions that must be followed when using powder actuated tools include the following:

a. Do not use a tool in an explosive or flammable atmosphere.
b. Inspect the tool before using it to determine that it is clean, all moving parts operate
c. freely, and that the barrel is free from obstructions and has the proper shield, guard, and
d. attachments recommended by the manufacturer.
e. Do not load the tool unless it is to be used immediately.

Purpose:

This section applies to the pressure testing of standard piping systems. Prior to initial operation of piping systems, testing is conducted to check for leaks. Hydrostatic testing is the preferred method of testing. Pneumatic testing is used when hydrostatic is not feasible or as required by the local testing agency. The testing process can be hazardous and must be performed with caution to ensure the safety of all personnel. Refer to applicable ASME and/or MCAA safety guidelines for planning, training, and conducting pressure testing activities.

Scope

This applies to all Foushée and Associates Company, Inc work sites.

Procedures

1.0 General Safe Work Practices

1.01 Subcontractors should establish a Standard Operating Procedure (SOP) for specific testing applications based on current and appliable ASME and/or MCAA safety guidelines. (See MCAA Guide for Pressure Testing Safety sample checklists).

1.02 The following items should be in place for pressure testing piping systems:

a. Pre-Test Safety Plan – develop a pre-test safety plan using the SOP.

i. Include all affected workers, contractors, and occupants in the pre-test safety planning process.

ii. Identifty the potential hazards and protective measures to mitigate against those hazards.

1.03 Worker Training – train all workers on the testing process for the specific application.

1.04 Pre-Test Safety Breifing – conduct a pre-test safety briefing.

a. Review the pre-test safety plan.

b. Ensure workers understand the process, potential hazards and protective measures.

c. Ensure workers have the proper equipment, materials and PPE to safely perform the specific testing.

d. Establish an emergency response plan including shutdown procedures and emergency contact information.

1.05 Walk down - conduct a walk down inspection of the system using the SOP/ checklist.

1.06 Final preparation – complete final preparations.

1.07 Testing – verify maximum allowable pressure for the system and pay attention to the pressure shown on the test gauges.

1.08 Post Test – follow the SOP to safely, and gradually release the pressure from the system and collect the waste liquid test medium when required.

1.09 A Preconstruction meeting will be held with Foushée project team to review the scope of work and safety documentation.

1.010 Only upon receipt of SOP, and a completed pressure test permit should subcontractors be authorized to begin pressurizing piping systems.

2.0 The SOP must be provided to each worker involved in the test application, and at a minimum, address the following:

2.01 Reason for pressure test – reference applicable contract requirements/ specification.

2.02 Planned test medium and test pressure.

2.03 Planned duration of test.

2.04 Lock Out/Tag Out procedures.

2.05 Test site preparations and related precautions, including but not limited to:

a. Pre-test briefing with all affected personnel

b. Walk down and inspection,

c. Determination of restricted areas,

d. Means and methods to isolate the test site to non-essential personnel,

2.06 Emergency procedures.

2.07 Identify components and equipment appropriate for the specific testing procedures.

2.08 Names of test supervisor, participants, and their qualifications/training

2.09 PPE requirements.

2.010 Restraint methods of piping system.

2.011 Step-by-step testing procedures.

2.012 Procedures to address leaks.

2.013 Step-by-step procedures to safely relieve the pressure post-test.

2.014 Means and methods to dispose of testing medium.

2.015 Modification or repair on any component of the tested systems under pressure is prohibited.

3.0 Pre-Test Safety Planning Guidance

3.01 The mechanical Lead will perform a hazard analysis before starting any pressure test. Perform the analysis as close as possible to the start of the test as possible.

a. Identify the worker who will be responsible for supervising (aka; Test Lead) the test.

b. Identify each worker who will be performing the test.

c. Inform each worker involved in the test about the hazards involved; and

4.0 Test Lead Responsibilities

4.01 The Test Lead is responsible for ensuring that:

a. Each worker who will be performing the test has been properly trained to safely perform the work; and

b. Each worker performing the test has received the necessary tools and equipment, including the safety equipment identified in the hazard analysis.

4.02 Perform a pre-test briefing just before the test begins. Include the following topics in the pre-test briefing:

a. Review each hazard that was identified in the hazard analysis

b. Review each of the established safe work procedures

c. Determine whether any changes to the safe work procedures are needed due to last minute changes.

d. Ensure that all of the necessary personal protective equipment is present.

5.0 Pressure Testing Procedure

5.01 Waste / Vent / Storm (Cast Iron hub and no-hub, ABS/PVC, Ductile Iron – Mechanical Joint, Cut Groove, Drain and Waste and Vent Copper, Acid and lab waste and stainless steel welded and grooved.)

5.02 Pressure test pre-task plan/JHA is completed and available.

5.03 Test gauge location shall be identified with signage. If any portion of the system being tested is susceptible to damage, it shall be identified and protected with delineation tape or other effective means.

5.04 Signage will be posted on system being tested. (sign to say "Caution System Under Test").

5.05 Pressurize system to 5psi and hold for 15min.

5.06 Once inspected test is dropped.

6.0 Hydrostatic Testing

6.01 Pressurization should follow owner's/manufacturer's/engineer's specification and the most current/applicable standards.

6.02 Temporary end closure plate size and weld details must use one of the three weld types specified in applicable standards.

6.03 Ambient-temperature water shall be used as the test medium except where there is a risk of damage due to freezing. Another liquid may be used if it is safe for personnel and compatible with the piping.

6.04 Vents shall be provided at high points in the system to release trapped air while filling the system. Drains shall be provided at low points for complete removal of the test liquid.

6.05 The system shall be examined to see that all equipment and parts that cannot withstand the test pressure are properly isolated. Test equipment shall be examined to ensure that it is tight and that low pressure filling lines are disconnected.

6.06 The test pressure shall not exceed the maximum test pressure for components in the system under test.

6.07 Maintain hydrostatic test pressure for at least the minimum duration required by specification and standards. Examine if there is any leakage of the piping at all joints and connections. If leaks are found, pressure shall be vented in accordance with Lock Out/Tag Out procedures. Appropriate repair or replacement will then be made, and the pneumatic test repeated until no leakage is found.

7.0 Pneumatic Testing

7.01 Pressurization should follow owner's/manufacturer's/engineer's specification and the most current/applicable standards.

7.02 Owner's contract documents and/or certain manufacturers may prohibit or restrict pneumatic pressurization of piping systems. The gas used for pneumatic testing shall be nonflammable and nontoxic.

7.03 The test pressure shall not exceed the maximum allowable pneumatic test pressure for any component in the system under test, but never go below the recommended level under the design pressure.

7.04 Gradually increase the pressure to no more ½ of the designed pressure.

7.05 Continue to raise the pressure in increments of 1/10 the test pressure and maintain it for 10 minutes, allowing for equalization of strains and detection of major leaks at each stage. Repeat the process until the required test pressure has been achieved and maintained for at least 10 minutes.

7.06 Next reduce the pressure to the design pressure or 100 psig, whichever is lower.

7.07 Leaks may be detected by soap bubble, halogen gas, scented gas, test gage monitoring, ultrasonic, or other suitable means. If leaks are found, pressure shall be vented in accordance with Lock Out/Tag Out procedures. Appropriate repair or replacement will then be made, and the pneumatic test repeated until no leakage is found.

8.0. Post Test

8.01 Release pressure before attempting to repair any leaks. Never attempt to repair leaks while the system is under pressure.

8.02 Carefully follow the procedures to safely and gradually release the pressure from the system and collect the waste liquid test medium when required. Caution must be taken to avoid escaping air stream, debris, and high noise levels.

8.03 Repair any leaks that were found. Lock Out/Tag Out procedures must be followed during leak repair.

8.04 Retest the system if necessary.

8.05 Complete any appropriate forms/logs to document test completion/pass.

Reference MCAA Guide to Pressure Testing Safety

Purpose

Stilt use is conditional and based on compliance of the following guidelines.

Policy

This policy will provide the minimum requirements for allowing the safe use of stilts on all Foushée jobsites.

Procedures

1.0 General Requirements

1.01 The use of stilts is for light duty tasks and not for heavy lifting of materials, frequent bending, demolition, or tasks involving overhead stripping of materials.

1.1.1. Each Subcontractor's foreman will complete and review with their crew a JHA/ procedure that follows the requirements in this section.
1.1.2. Each Subcontractor's foreman will perform an inspection for housekeeping to ensure no slip/trip/fall hazards are present in the room or area.

1.02 Stilts will be disqualified for the following actions:

1.2.1. Failure to have a Daily Stilt Checklist/ JHA for their work activity.
1.2.2. Failure to follow the requirements of this section or subcontractors own stilt safety plan.
1.2.3. Unsafe acts while using stilts.
1.2.4. Failure to perform location inspection and complete Stilt Use Daily Checklist/ JHA.

2.0 Requirements of Subcontractors Stilt Use Plan

2.01 Training

1.2.5. Employees must be properly trained in the safe use of stilts.
1.2.6. The elements of the training must be identified in their JHA/procedure.
1.2.7. Employees will have documented training on the safe use of stilts.

3.0 Work Area Layout

3.01 Employer's Stilt Use Daily Safety Checklist should identify all potential stilts hazards such as but not limited to:

1.2.8. Changes in the level or slope of the work area
1.2.9. Railings adjacent to edges
1.2.10. Wall or ceiling features that may restrict movement when using stilts
1.2.11. Floor penetrations, hole covers, stairwells, and voids
1.2.12. Window openings
1.2.13. Slip, trip, or fall hazards

3.02 Corrective / Preventive measures for identified hazards must be addressed prior to use of stilts.

4.0 Fall Protection at Four Feet or More

4.01 When employees are using stilts, on a walking/ working surface with standard guardrails, the height of the top rail or equivalent member of the guardrail system must be increased (or additional rails may be added) an amount equal to the height of the stilts while maintaining the strength specifications of the guardrail system.

4.02 Stilts will not be authorized for use in any area that cannot be protected by raising guardrails to an amount equal to the height of the stilts such as window openings, stairwells, shaft openings, or falls to a lower level.

5.0 Work Area Conditions

5.01 Stilts should not be used where the ceiling height is greater than 9 feet.

5.02 Floor surfaces must be solid, level, and able to support stilt work activity.

5.03 Floor surfaces should be clear of all debris, wet mud, swept clean and dry.

5.04 No oily or slippery residue shall remain on the floor surface.

5.05 Floor surfaces must be free of trip hazards, cords, hoses, screws, nails, etc.

5.06 Work areas should be sufficiently illuminated.

5.07 Hole covers in the vicinity must meet be able to support 4X the anticipated load, have beveled edges, be secured against movement, clearly marked and clearly visible to stilt use workers.

5.08 Hole covers must be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.

5.09 Hole covers must be secured against movement and clearly marked “hole” and visible.

6. 0 Work Practices

6.01 Follow manufacturer recommendations for safe use of stilts.

6.02 No other trades working in the same room or area.

6.03 The area of stilt use is adequately barricaded / identified to prevent other workers not involved in the stilt use from entering.

6.04 Cordless tools are preferred to use with stilts.

6.05 The Stilt Use Plan should address inspection and maintenance of stilts, including daily inspections by employees and periodic inspections by supervision.

6.06 Immediately notify Foushée Superintendent of any incident or near miss involving stilt use.

Purpose

The purpose of this program is to protect employees against the hazards associated with scaffolds. This program covers the basic hazards of working with inspecting and using scaffolds.

Contact the Foushée Safety Department when planning to use Suspended or Specialty scaffolds for additional training and requirements.

Foushée elects to use scaffold contractors on many of its projects. The scaffold contractor must adhere to the DOSH scaffold standard: WAC 296-874 for safe erection, alteration, movement, dismantle, and fall protection. Once the scaffold is complete, a Foushée supervisor will inspect the scaffold for compliance with the scaffold contractor.

Policy

This policy applies to all Foushée jobsites.

1.0 Definitions

"Adjustable suspension scaffold" A suspended scaffold equipped with one or more hoists that can be operated by employees on the scaffold.

"Bearer" A horizontal scaffold member (which may be supported by ledgers or runners) upon which the scaffold platform rests, and which joins scaffold uprights, posts, poles, and similar members.

"Boatswain's chair" A single-point adjustable suspended scaffold consisting of a seat or sling designed to support one employee in a sitting position.

"Brace" A rigid connection that holds one scaffold member in a fixed position with respect to another member, or to a building or structure.

"Bricklayers' square scaffold" A supported scaffold composed of framed squares which support a platform.

"Carpenters' bracket scaffold" A supported scaffold consisting of a platform supported by brackets attached to building or structural walls.

"Catenary scaffold" A suspended scaffold consisting of a platform supported by 2 essentially horizontal and parallel ropes attached to structural members of a building or other structure. Additional support may be provided by vertical pickups.

"Cleat" A structural block used at the end of a platform to prevent the platform from slipping off its supports. Cleats are also used to provide footing on sloped surfaces such as access ramps. Competent person. Someone who:

a. Is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees; and
b. Has the authority to take prompt corrective measures to eliminate them.

"Coupler" A device for locking together the tubes of a tube and coupler scaffold.

"Double-pole (independent pole) scaffold" A supported scaffold consisting of one or more platforms resting on cross beams (bearers) supported by ledgers and a double row of uprights independent of support (except ties, guys, braces) from any structure.

“Equivalent” Alternative design, material or method to protect against a hazard. Demonstrate it provides an equal or greater degree of safety for employees than the method, material or design specified in the rule.

“Exposed power lines” Electrical power lines which are accessible to and may be contacted by employees. Such lines do not include extension cords or power tool cords. Eye or eye splice. A loop at the end of a wire rope.

“Fabricated frame scaffold (tubular welded frame scaffold)” A scaffold consisting of platforms supported on fabricated frames with integral posts, horizontal bearers, and intermediate members.

“Failure” Load refusal, breaking, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

“Float (ship) scaffold” A suspended scaffold consisting of a braced platform resting on two parallel bearers and hung from overhead supports by ropes of fixed length.

“Form scaffold” A supported scaffold consisting of a platform supported by brackets attached to formwork.

“Guardrail system” A vertical barrier, consisting of, but not limited to, toprails, midrails, and posts, erected to prevent employees from falling off a scaffold platform or walkway.

“Handrails (ladder stands)” A rail connected to a ladder stand running parallel to the slope and/or top step.

“Hoist” A manual or power-operated mechanical device to raise or lower a suspended scaffold.

“Horse scaffold” A supported scaffold consisting of a platform supported by construction horses (sawhorses). Horse scaffolds constructed of metal are sometimes known as trestle scaffolds.

“Independent pole scaffold” (See double pole scaffold).

“Interior hung scaffold” A suspended scaffold consisting of a platform suspended from the ceiling or roof structure by fixed length supports.

“Ladder jack scaffold” A supported scaffold consisting of a platform resting on brackets attached to ladders.

“Ladder stand” A mobile, fixed-size, self-supporting ladder consisting of a wide flat tread ladder in the form of stairs.

“Landing” A platform at the end of a flight of stairs.

“Large area scaffold” A pole scaffold, tube and coupler scaffold, system scaffold, or fabricated frame scaffold erected over substantially the entire work area. For example: A scaffold erected over the entire floor area of a room.

“Lean-to scaffold” A supported scaffold which is kept erect by tilting it toward and resting it against a building or structure.

“Ledger” (See runner).

“Lower levels” Areas below the level where the employee is located and to which an employee can fall. Such areas include, but are not limited to, ground levels, floors, roofs, ramps, runways, excavations, pits, tanks, materials, water, and equipment.

“Masons' adjustable supported scaffold” (See self-contained adjustable scaffold).

“Masons' multipoint adjustable suspension scaffold” A continuous run suspended scaffold designed and used for masonry operations.

“Maximum intended load” The total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time.

“Midrail” A rail, approximately midway between the toprail of a guardrail system and the platform and secured to the uprights erected along the exposed sides and ends of a platform.

“Mobile scaffold” Supported scaffold mounted on casters or wheels.

“Multilevel suspended scaffold” A two-point or multipoint adjustable suspension scaffold with a series of platforms at various levels resting on common stirrups.

“Multipoint adjustable suspension scaffold” A suspended scaffold consisting of a platform(s) which is suspended by more than two ropes from overhead supports and equipped with means to raise and lower the platform to desired work levels.

“Needle beam scaffold” A suspended scaffold which has a platform supported by two bearers (needle beams) suspended from overhead supports.

“Outrigger” A structural member of a supported scaffold which increases the base width of a scaffold. This provides support for and increases the stability of the scaffold.

“Outrigger beam (suspended and supported)” The structural member of a suspended scaffold or outrigger scaffold which provides support for the scaffold by extending the scaffold point of attachment to a point out and away from the structure or building.

“Outrigger scaffold” A supported scaffold consisting of a platform resting on outrigger beams which projects beyond the wall or face of the building or structure. The inboard ends of the outrigger beams are secured inside the building or structure.

“Overhand bricklaying” The process of laying bricks and masonry so that the surface of the wall is on the opposite side of the wall from the mason, requiring the mason to lean over the wall to complete the work. It includes mason tending and electrical installation incorporated into the brick wall during the overhand bricklaying process.

“Platform” A work surface used in scaffolds, elevated above lower levels. Platforms can be constructed using individual wood planks, fabricated planks, fabricated decks, and fabricated platforms.

“Pole scaffold” (See single-pole scaffold and double (independent) pole scaffold).

“Pump jack scaffold” A supported scaffold consisting of a platform supported by vertical poles and movable support brackets.

“Qualified person” A person who has successfully demonstrated the ability to solve problems relating to the subject matter, work, or project, either by:

a. Possession of a recognized degree, certificate, or professional standing; or
b. Extensive knowledge, training and experience.

“Rated load” The manufacturer's specified maximum load to be lifted by a hoist or to be applied to a scaffold or scaffold component.

“Repair bracket scaffold” A supported scaffold consisting of a platform support ed by brackets. The brackets are secured in place around the circumference or perimeter of a chimney, stack, tank or other supporting structure by one or more wire ropes placed around the supporting structure.

“Roof bracket scaffold” A supported scaffold used on a sloped roof. It consists of a platform resting on angular-shaped supports so that the scaffold platform is level.

“Runner (ledger)” The lengthwise horizontal spacing or bracing member which may support the bearers.

“Scaffold” A temporary elevated platform, including its supporting structure and anchorage points, used for supporting employees or materials.

“Self-contained adjustable scaffold” A combination supported and suspended scaffold consisting of an adjustable platform mounted on an independent supporting frame, not a part of the object being worked

on, which is equipped with a means to raise and lower the platform. Such systems include rolling roof rigs, rolling outrigger systems, and some masons' adjustable supported scaffolds.

“Shore scaffold” A supported scaffold which is placed against a building or structure and held in place with props.

“Single-point adjustable suspension scaffold” A suspended scaffold consisting of a platform suspended by one rope from an overhead support and equipped with means to permit the movement of the platform to desired work levels.

“Single pole scaffold a supported scaffold” Consisting of platforms resting on bearers, the outside ends of which are supported on runners secured to a single row of posts or uprights, and the inner ends of which are supported on or in a structure or building wall.

“Stair tower (scaffold stairway/tower)” A tower comprised of scaffold components which contains internal stairway units and rest platforms. These towers are used to provide access to scaffold platforms and other elevated points such as floors and roofs.

“Stall load” The load at which the prime mover of a power-operated hoist stalls or the power to the prime mover is automatically disconnected.

“Step, platform, and trestle ladder scaffold” A platform resting directly on the rungs of a step, platform, or trestle ladder.

“Stilts” A pair of poles or similar supports with raised footrests, used to permit walking above the ground or working surface.

“Stonesetters' multipoint adjustable suspension scaffold” A continuous run suspended scaffold designed and used for stonesetters' operations.

“Supported scaffold” One or more platforms supported by rigid means such as outrigger beams, brackets, poles, legs, uprights, posts, or frames.

“Suspended scaffold” One or more platforms suspended from an overhead structure by ropes or other nonrigid means.

“System scaffold” A scaffold consisting of posts with fixed connection points that accept runners, bearers, and diagonals that can be interconnected at predetermined levels.

“Toeboard (scaffold)” A barrier erected along the exposed sides and ends of a scaffold platform at platform level to prevent material, tools, and other loose objects from falling from the platform.

“Top plate bracket scaffold” A scaffold supported by brackets that hook over or are attached to the top of a wall. This type of scaffold is similar to carpenters' bracket scaffolds and form scaffolds.

“Tube and coupler scaffold A scaffold consisting of platforms supported by tubing, erected with coupling devices connecting uprights, braces, bearers, and runners.

“Tubular welded frame scaffold” (See fabricated frame scaffold).

“Tubular welded sectional folding scaffold” A sectional, folding metal scaffold either of ladder frame or inside stairway design. It is substantially built of prefabricated welded sections, which consist of end frames, platform frame, inside inclined stairway frame and braces, or hinged connected diagonal and horizontal braces. It can be folded into a flat package when the scaffold is not in use.

“Two-point suspension scaffold (swing stage)” A suspended scaffold consisting of a platform supported by hangers (stirrups), suspended by two ropes from overhead supports, and equipped with a means to permit the raising and lowering of the platform to desired work levels.

“Unstable objects” Items whose strength, configuration, or lack of stability may allow them to become dislocated and shift and therefore may not properly support the loads imposed on them. Unstable objects

do not constitute a safe base support for scaffolds, platforms, or employees. Examples include, but are not limited to, barrels, boxes, loose brick, and concrete blocks.

"Vertical pickup" A rope used to support the horizontal rope in a catenary scaffold.

"Walkway (scaffold)" Part of a scaffold used only for access and not as a working level.

"Window jack scaffold" A platform resting on a bracket or jack that projects through a window opening.

"Work level" The elevated platform used for supporting workers and their materials.

Procedure

2.0 General Requirements

2.01 Scaffolds will be properly designed by a qualified person and constructed by a competent person.

2.02 Maintain structural integrity when intermixing scaffold components.

2.03 The scaffold contractor will post and sign a green inspection tag upon final completion to signify the scaffold is ready for safe use.

2.04 Inspect scaffolds and scaffold components for visible defects by a competent person:

- a. Before each work shift; and
- b. After anything occurs that could affect the scaffold's structural integrity.

2.05 Before starting work on a scaffold, inspect it for the following:

- a. Are guardrails, toeboards, and planking in place and secure?
- b. Are locking pins at each joint in place?
- c. Are all wheels on moveable scaffolds locked?

2.06 Scaffold tagging procedures must be followed.

- a. Scaffolding will be tagged appropriately during erecting, use, and dismantling.
- b. Scaffolds will be inspected prior to use by designated competent person.
    - i. Scaffold inspection checklist will be completed, documented, and submitted.
- c. Tags will be located at main access point (ladder).

2.07 Scaffolding Tag Identification Code

2.08 Red Tag = "DO NOT USE", This prohibits use of scaffolding.

2.09 Yellow Tag = "NOT ERECTED TO CODE". Indicates a restriction or special use conditions of scaffold, i.e., requirement for fall protection system.

2.010 Green Tag = "APPROVED FOR USE". Indicates scaffold is erected to all safety standards, inspected by a competent person, and is ready for use.

2.011 Properly load scaffolds as specified in the:

2.012 Manufacturer's instructions; or

2.013 Design of the qualified person. Make sure scaffolds and scaffold components do not exceed their maximum intended load or rated load, whichever is less.

2.014 Do not move scaffolds horizontally while employees are on them, unless specifically designed for movement by a registered professional engineer or it meets requirements of a mobile scaffold.

2.015 Do not use makeshift devices on scaffold platforms to increase the working level height for employees. Contact the **Foushée Safety Department if additional height is required.**

2.016 Provide safe access to scaffolds with ladders, stair tower, ramp, walkway, integral prefabricated access or direct access from another scaffold or structure.

2.017 Do not use cross braces as a means of access.

2.018 Do not attempt to gain access to a scaffold by climbing on it (unless it is specifically designed for climbing).

2.019 Scaffolds and their components must be capable of supporting four times the maximum intended load.

2.020 Any scaffold, including accessories such as braces, brackets, trusses, screw legs, ladders, etc., damaged or weakened in any way, must be immediately repaired or replaced.

2.021 Where persons are required to work or pass under the scaffold, scaffolds shall be provided with a screen between the toeboard and guardrail, extending along the entire opening.

2.022 All scaffolds must be erected level and plumb, and on a solid footing.

2.023 Support legs must rest on manufacturers base plate or 1/2" x 10" x 10" exterior plywood block.

2.024 Do not change or remove scaffold members unless authorized.

2.025 Do not allow workers to ride on a rolling scaffold when it is being moved. Remove or secure all materials and tools on deck before moving.

2.026 Do not alter any scaffold member by welding, burning, cutting, drilling, or bending.

3.0 Planking

3.01 Fully plank or deck each platform between the front uprights and the guardrail supports on all working levels of a scaffold.

3.02 Planking will have no more than 1 inch between adjacent units and platform and uprights.

3.03 Lay platform planks properly when the platform changes direction.

EXEMPTION:

1. There may be more than 1 inch between platform units if all of the following are met:
    a. You can demonstrate that a wider space is necessary, such as to fit around uprights when side brackets are used to extend the platform width.
    b. The platform is planked or decked as fully as possible.
    c. The open space between the platform and the guardrail supports is 9 ½ inches (24.1cm) or less.

2. Platforms used solely as walkways or only by employees erecting or dismantling scaffolds do not have to be fully decked or planked if:
    a. The planking provided makes for safe working conditions; and
    b. Employees on those platforms are protected from falling.

3.04 Make sure each end of a platform:

a. Is it cleated or restrained by hooks or equivalent means; or

b. Extends over the centerline of its support at least 6 inches.

3.05 Make sure a loaded platform does not sag more than one-sixtieth of the span.

3.06 Scaffold planks must extend over their end supports not less than 6 inches nor more than 12 inches, unless otherwise specifically required.

3.07 Scaffold platforms must be at least 18 inches wide unless otherwise specifically required or exempted. Refer to Table 1 Chart on next page.

3.08 Scaffold planking of not less than 2" x 10" (nominal size) is recommended.

3.09 Planking with cracks or knots shall not be used.

4.0 Train employees who work on a scaffold

4.01 A qualified person will train each employee who works on a scaffold to:

a. Recognize the hazards associated with the type of scaffold they are using; and

b. Understand the procedures to control or minimize the hazards.

c. Retrain employees to reestablish proficiency if they lack the skill or understanding to safely erect, use, or dismantle a scaffold.

5.0 Protect employees from weather, slipping and tripping hazards

5.01 Prohibit work from scaffolds during storms or high winds.

5.02 Do not use wind screens unless engineered for anticipated wind forces.

5.03 Protect employees from slipping and tripping hazards.

5.04 Do not allow debris to accumulate on scaffolds.

Prohibit employees from working on scaffolds covered with snow, ice or other slippery material.

6.0 Provide fall protection for employees on scaffolds

6.01 Protect each employee on a scaffold more than 10 feet (3.1 m) above a lower level, from falling to the lower level, by providing either:

a. A personal fall arrest system; or

b. Guardrails.

6.02 The scaffold contractor or erector will install a guardrail system, if required, before the scaffold is used by any employees.

6.03 Provide fall protection if a scaffold is too far from the work face.

6.04 Provide a guardrail system along the front edge of the platform, or have employees use a personal fall arrest system, if the distance from the front edge of the platform to the work face is greater than:

a. 18 inches (46 cm) for scaffolds used for plastering and lathing operations,

b. 14 inches (36 cm) for all other scaffolds.

6.05 Provide specific fall protection for specific types of scaffolds. **Contact the Foushée Safety Department if using other than supported scaffold.**

6.06 Install guardrails along all open sides and ends of platforms.

6.07 The height of the top rail top edge, or the equivalent member, of supported scaffolds is:

a. At least 38 inches (0.97 m) and not more than 45 inches (1.2 m) above the platform surface for scaffolds manufactured or first placed in service after January 1, 2000.

You must make sure scaffold platforms meet the minimum width requirements of Table 1, Minimum Platform Width.

Table 1 Minimum Platform Width

Type of Scaffold	Minimum Platform Width Required
Ladder jack scaffold Pump jack scaffold Roof bracket scaffold Top plate bracket scaffold	12 inches (20 cm)
Boatswain's chair	No minimum width
All other scaffolds	18 inches (46 cm) ***Exemption***: *Platforms and walkways may be less than 18 inches (46 cm) wide if all of the following are met:* 1. *You can demonstrate that the area is so narrow that the platform or walkway cannot be at least 18 inches (46 cm) wide;* 2. *The platform or walkway is as wide as feasible;* 3. *Employees on those platforms or walkways are protected from falling by using guardrails or personal fall arrest systems.*

6.08 Mid rails are required at a height midway between the top edge of the guardrail system and the platform surface or screens and mesh from the top edge of the guardrail system to the scaffold platform.

6.09 Protect employees from being struck by tools, materials, or equipment falling from a scaffold by doing one or more of the following:

a. Use a barricade to keep employees out of the area where falling objects could be a hazard.

i. Install a toeboard along the edge of the platform anywhere an object could fall on an employee below.

ii. Toe boards must be at least 1 inch by 4 inches lumber or equivalent.

iii. Install paneling or screening that covers from the top of the guardrail to the toeboard or platform anywhere the toeboard is not high enough to keep objects from falling off the platform.

iv. Install a guardrail system with openings small enough to keep potential falling objects from passing through.

v. Erect a canopy structure, debris net, or catch platform over employees that does the following:

1. Will contain or deflect falling objects,
2. Is strong enough to withstand the impact forces,
3. Is installed between the falling object hazard and the employees.

6.010 Potential falling objects that are too large or heavy to be contained or deflected by the falling object protection will be:

a. Moved away from the edge of the surface they could fall from; and

b. Secured, as necessary, to prevent falling.

6.011 When working on overhead scaffolding, protect those working in or passing through the area in the vicinity of the scaffold below. Rope off the area below or place warning signs to ensure the safety of other employees.

7.0 Minimum separation distance from power lines.

7.01 Scaffolds must be erected, moved, altered, or dismantled such that they, and any conductive material handled on them, are kept at least as far from exposed and energized power lines as shown in Table 2, Minimum Separation Distance from Energized Power Lines.

Table 2 Minimum Separation Distance from Energized Power Lines

Voltage	Minimum Separation Distance
Less than 300 volts (insulated lines)	3 feet (0.9 m)
Less than 300 volts (uninsulated lines)	10 feet (3.1 m)
300 volts to 50 kv	10 feet (3.1 m)
More than 50 kv	10 feet (3.1 m) .+ 0.4 inches (1.0 cm) for each 1 kv over 50 kv *Note: You may use an alternative minimum separation distance of 2 times the length of the line insulator, but never less than 10 feet (3.1 m).*

8.0 Tubular Welded Rolling Scaffolds

8.01 Cross bracing and/or diagonal bracing is required to secure vertical members laterally.

8.02 Cross bracing must square and align vertical member to keep scaffolding plumb at all times.

8.03 All bracing connections must be secure.

8.04 Legs must be set on adjustable bases, mud sills, or other foundations adequate to support the maximum load.

8.05 Frames will be placed on top of another using coupling or stacking pins for vertical alignment.

8.06 Panels will be locked together vertically by pins or other equivalent suitable means to prevent uplifting.

8.07 Scaffolding will be secured to a structure at intervals no greater than 30 feet horizontally or 26 feet vertically.

8.08 For all frame scaffolds over 125 feet (38.0 m) high above their base plates their drawings and specifications must be designed by a registered professional engineer and constructed and loaded as specified in the design, per WAC 296-874-40018.

8.09 Upon receipt of shipment of tubular scaffolds, always inspect all components.

9. Mobile Scaffolds

The design and construction of mobile work platforms and rolling (mobile) scaffolds will conform to the following:

9.01 Make sure, before a scaffold is moved, that employees on the scaffold are made aware of the move.

9.02 Apply manual force being used to move a scaffold:

a. As close to the base as practicable; and

b. Within 5 feet (1.5 m) of the supporting surface.

9.03 Make sure power systems used to propel mobile scaffolds have been designed for such use.

9.04 Forklifts, trucks, similar motor vehicles, or add-on motors are not used to propel scaffolds unless the scaffold has been designed to be used with that type of propulsion system.

9.05 Stabilize scaffolds to prevent tipping when they are being moved.

9.06 Scaffolds must not be moved with employees riding on it unless all the following are met:

a The surface on which the scaffold is being moved is:

b. Within 3 degrees of level; and

c. Free of pits, holes, and obstruction.

9.010 No employee is on any part of the scaffold which extends out beyond the wheels, casters, or other supports.

9.011 Outrigger frames, when used, are installed on both sides of the scaffold.

9.012 The power system, if used:

a. Applies the propelling force directly to the wheels; and

b. Produces a speed of 1 foot per second (.3 mps) or less.

9.013 The height of the scaffold:

a. Is not more than 2 times the least base dimension; or

b. The scaffold is designed and constructed to meet or exceed nationally recognized stability test requirements, such as those listed in ANSI/SIA A92.5, Boom-Supported Elevating Work Platforms, and ANSI/SIA A92.6, SelfPropelled Elevating Work Platforms. The designed working load of ladder stands must be calculated based on one or more individuals weighing 200 pounds with 50 pounds of equipment per person.

10.0. Suspended Scaffolds (Swing Stage Scaffold)

10.01 Wire, synthetic or fiber rope used for scaffold suspension must support at least six times the maximum intended load.

10.02 Non-conducting insulated material will be placed over scaffold suspension cables if there is any chance of contact with an electrical arc.

10.03 Employees working from a two-point suspended scaffold must wear a full body harness and be tied-off to an independent lifeline.

10.04 Multi-stage scaffolds require additional safety suspension lines and fall protection devices.

10.05 Ropes will be protected from burning or welding operations.

10.06 Suspended scaffolds must support, without failure, the total of their own weight plus 4 times the maximum intended load.

10.07 A competent person must evaluate all direct connections prior to use to confirm that the supporting surfaces are able to support the imposed load.

10.08 All suspension scaffolds must be tied or otherwise secured to prevent them from swaying, as determined by a competent person.

10.09 A competent person must inspect ropes for defects prior to each work shift and after every occurrence that could affect a rope's integrity

10.010 Emergency escape and rescue devices must not be used as working platforms, unless designed to function as suspension scaffolds and emergency systems.

11.0 Properly Load Scaffolds

11.01 You must load scaffolds as specified in the:

a. Manufacturer's instructions; or

b. Design of the qualified person

11.02 Make sure scaffolds and scaffold components do not exceed their maximum intended load or rated load, whichever is less.

12.0 Control loads being hoisted near scaffolds

12.01 Use a tag line to control loads being hoisted onto or near a scaffold if the load could swing and contact the scaffold

13.0 Protect employees from weather hazards

13.01 Prohibit work on or from scaffolds during storms or high winds unless the following are met:

a. A competent person has determined that it is safe for employees to be on the scaffold

i. The employees are protected by either:

- A personal fall arrest system; or
- Wind screens

13.02 Make sure wind screens are not used unless the scaffold is secured against the anticipated wind forces.

14.0 Protect employees from slipping and tripping hazards

14.01 Make sure debris does not accumulate on platforms.

14.02 Prohibit employees from working on scaffolds covered with snow, ice, or other slippery material.

15.0 Prevent supported scaffolds from tipping

15.01 Make sure supported scaffolds with a height-to-least-base-dimension ratio of greater than 4-to-1 are prevented from tipping by one or more of the following: (Note: The least base dimension includes outriggers, if used).

a. Guying

b. Tying

c. Bracing

d. Other equivalent means

15.02 Install guys, ties, and braces where horizontal members support both the inner and outer legs of the scaffold.

15.03 Install guys, ties, and braces:

a. According to the scaffold manufacturer's recommendations; or

b. At all points where the following horizontal and vertical planes meet:

i. First vertical level at a height equal to 4 times the least base dimension.

ii. Subsequent vertical levels every:

15.04 20 feet (6.1 m) or less for scaffolds having a width of 3 feet (0.91 m) or less.

15.05 26 feet (7.9 m) or less for scaffolds more than 3 feet (0.91 m) wide.

a. Horizontally at:

i. Each end of the scaffold; and

ii. Intervals of 30 feet (9.1 m) or less.

Note: The 30-foot horizontal intervals are measured from one end of the scaffold to the other.

15.05 Make sure the highest level of guys, ties, or braces is no further from the top of the scaffold than a distance equal to 4 times the least base dimension.

15.06 You must make sure scaffolds that have an eccentric load applied or transmitted to them, such as a cantilevered work platform, are prevented from tipping by one or more of the following:

a. Guying
b. Tying
c. Bracing
d. Outriggers
e. Other equivalent means.

16.0 Make sure supported scaffolds are properly supported

16.01 Make sure supported scaffold poles, legs, posts, frames, and uprights are:

a. Plumb; and
b. Braced to prevent swaying or displacement

16.02 Make sure supported scaffold poles, legs, posts, frames, and uprights, bear on base plates that rest on:

a. Mudsills; or
b. Other firm foundations such as concrete or dry, compacted soil

16.03 You must make sure foundations are all the following:

a. Level
b. Sound
c. Rigid
d. Capable of supporting the loaded scaffold without settling or displacement.

EHS Forms and Documents

* ***Supported Scaffold Checklist***

Purpose

The purpose of this section is to establish safe guidelines and practices for using signs, signals and barricades.

Policy

Where work of any nature on a Foushée jobsite constitutes a potential hazard to employees or public traffic, either vehicular or pedestrian, appropriate warning signs, barriers, lights and/or flags shall be used as a warning or exclusion method.

Procedure

1.0 Signs and Signals

1.1. Signs will be posted visibly at all times when hazardous type work is being performed and will be removed when the hazard or purpose no longer exists.

1.2. Danger signs will be used where an immediate hazard exists and have red as the dominate color.

1.3. Caution signs will be used to warn against potential hazards and have yellow as the dominant color.

1.4. Mark exits adequately. The letters in the word “EXIT” will be six inches high and three-fourths inch wide. Make exit signs a distinctive color such as red or green.

1.5. Traffic control signs or signals will meet MUTCD standards.

1.6. Danger signs indicating prohibition of smoking or other ignition sources shall be placed where there is a fire or explosion potential.

1.7. Warning signs should be permanently placed on all enclosures surrounding high voltage equipment and at locations where necessary to warn of the presence of high voltages.

2.0 Barricades

2.1. Barricades will be visible when work is being performed and removed when there is no longer a hazard.

2.2. Warning tape or rope will be used when a barrier is impractical and will be applied to identify an unsafe work area to prevent personnel from approaching or contacting.

2.3. Violators of “Danger” warning barriers are subject to disciplinary action.

2.4. Barricade tape, when used, shall be a minimum of two (2) inches wide and be red and black for “danger” and yellow and black for “caution”. Wooden barricades should be painted with the same colors as barricade tape or the appropriate tape should be attached.

2.5. Red and black “Danger” tape is to be used whenever access is prohibited due to potential serious injury exposure.

2.6. Do not cross Danger barricades except by permission of the supervisor in charge of the work zone.

2.7. Yellow and black “Caution” tape is to be used to designate areas of caution.

2.8. Barricades will have signage attached identifying the hazard and contact supervisor.

2.9. Employees are allowed to pass through areas delineated with caution tape providing they have knowledge of the caution.

Purpose

The purpose of this program is to assure that all Foushée employees who work with or around Silica are provided with safe, effective and efficient protective methods and procedures.

Policy

This procedure applies to all Foushée jobsites.

Procedure

1.0 Definitions

"Competent Person" Person capable of identifying existing and predictable silica hazards in and around the work area and who has the authorization to take prompt corrective measures to eliminate them.

"Feasible" Shall be determined by the Safety Department.

"High Efficiency Particulate Accumulator (HEPA)" A HEPA filter is rated at 99.97% efficient for particulate matter to 0.3 microns in size.

"Permissible Exposure Limit (PEL)" Legal employee exposure level set by OSHA. The PEL for Silica is 50 ug/m3.

"Silica" Silica is a general term for silicon dioxide (Si02). Silica is the second most common mineral in the earth's crust. Silica is commonly referred to as silica sand, free-silica, quartz, cristobalite and tripoli. Silica exposure could result from abrasive blasting with silica and/or sandblasting, cutting, drilling, grinding and chipping a concrete and/or masonry surfaces.

2.0 Exposure Assessment

2.01 All work shall be performed as indicated in Table 1 of WAC 296-840. When using Table 1 for identified tasks, exposure monitoring is not required.

2.02 Based on identified work tasks and work done in compliance to Table 1, workers should not be exposed to silica above the PEL or AL.

2.03 If new tasks not identified in Table 1 become identified, exposure monitoring may be required. In this event, Foushée will treat the employee as if he/she is exposed above the PEL until engineering controls can be implemented to eliminate the exposure.

2.04 If Foushée choses to deviate from Table 1 data, exposure monitoring shall be done to determine employee exposures to silica

3.0 Engineering And Work Practice Controls

3.01 All work shall be done in strict compliance with Table 1

4.0 Respiratory Protection

4.0.1 Respirators shall be used according to Table 1.

5.0 Protective Clothing

5.0.1 Silica dust shall not be removed from protective clothing or equipment by blowing, shaking, or any other methods which disperses silica into the air. Cleaning shall be done with HEPA vacuum.

6.0 Housekeeping

6.0.1 All surfaces shall be maintained as free as practicable from silica dust accumulation.

6.0.2 Methods of clean up shall be those which minimize the amount of silica dust becoming airborne. No sweeping or compressed air shall be used to clean surfaces.

6.0.3 Vacuums shall be equipped with HEPA filters. Once used, they shall be emptied in a manner which minimizes the re-entry of silica into the work place.

7.0 Signs And Barricades

7.0.1 Foushée shall assure that signs are posted and barricades, such as tape or rope are used to restrict people from entering the work area where concrete cutting is done.

8.0 Hygiene Facilities

8.0.1 Food, beverages and tobacco products shall not be present or consumed within the barricaded areas or in areas.

8.0.2 Employees shall be instructed to wash their face and hands before eating, drinking, smoking or applying cosmetics.

9.0 Medical Surveillance

9.0.1 Medical surveillance shall be provided at no cost to employees who are, or might be, exposed to silica above the PEL, including those potentially exposed where airborne concentrations are unknown. This must be done prior to job start up and at job completion. As a result of Foushée complying strictly with Table 1, no medical surveillance shall be needed.

10.0 Recordkeeping

10.0.1 Medical records shall be made available upon request of an employee, former employees, their designated representatives and DOSH.

10.0.2 All employees' medical and exposure records are to be maintained for the duration of employment plus thirty (30) years.

11.0 Training

11.0.1 All Foushée employees shall be trained prior to job start up. Training shall consist of the following:

1. Instruct each employee in the recognition and avoidance of unsafe conditions concerning silica.
2. Notify employees of all the facts concerning potential physical and health hazards and potential adverse health effects caused by silica exposure.
3. Discuss guidelines regarding personal hygiene, personal protective measures, and the equipment required.
4. Explain and discuss the Hazard Communication Program and Silica Protection Program. Include information about proper labeling and material safety data sheets.
5. Instruct on the Personal Protective Equipment Program and Respiratory Protection Program, including selection, inspection, use and maintenance of respirators.

11.0.2 Training shall be documented and kept on record at the jobsite. Forward training records to the main office once the job is complete.

EHS Forms and Documents

- ***Silica: Controlling Silica Exposure Table 1***
- ***Silica: Controlling Silica Exposure Control Training Acknowledgement***
- ***Silica: Silica Control Plan – General***
- ***Silica Plan***

Purpose

This section applies to the prevention of hazards associated with industrial trucks.

Scope

This applies to all Foushée and Associates Company, Inc work sites.

1.0 General

1.01 When in use, industrial trucks should be inspected frequently, a minimum of one inspection each shift. Any defects shall be reported promptly to the supervisor in charge.

1.02 When parked or not in use, the forks, platforms, etc. must be in a lowered position.

1.03 When traveling, the forks, platforms, etc., should clear the floor or ground surface and be tilted backward for increased stability.

1.04 Before driving into vans, trailers, railcars, etc., from a loading dock, ensure the bridge plate is installed and properly secured.

1.05 Set parking brake and chock rear wheel on industrial trucks and aerial lifts, placed on elevators, ramps or slopes.

1.06 Riders are not permitted on lift trucks, mobile cranes, or other mechanized equipment unless equipped by the manufacturer for such purpose.

1.07 Lift truck speed shall be regulated to suit conditions of the area traveled, with special care exercised at all intersections.

1.08 Loads should be picked up under the center of their weight. If the load is on pallets, the pallets should be loaded with the weight evenly distributed.

1.09 Loose loads should be secured to prevent them from shifting and toppling while in motion.

1.010 When descending ramps, keep the load in the rear, engage the lowest gear, and travel at the slowest speed.

1.011 Work platforms and forklifts (PIT's) used to lift people require authorization for use. **Contact the Foushée Safety Department for additional requirements**

1.012 Platforms, cages, or baskets must be provided with the required protective equipment, e.g., handrails, mid rails, toe boards, head protection, lanyards and safety belts.

1.013 Never lift or lower a load when the lift truck is in motion.

1.014 Adequate ventilation shall be assured when operating gasoline, diesel, or L.P.G. powered equipment in confined areas. Breathing air shall be a minimum of 19.5% oxygen content. Areas where vehicles are operated should be sampled for carbon monoxide concentrations on a regular basis.

1.015 Refueling should be performed in a safe area with adequate ventilation.

1.016 All vehicles, except electric vehicles, should carry an operational fire extinguisher and the operator trained in the use of it.

EHS Forms and Documents

* ***Silica: Controlling Silica Exposure Table 1***

Purpose

The purpose of this section is to establish requirements to protect personnel from the hazards of welding and cutting activities.

Scope

This section applies to all Foushée jobsites.

Procedure

1.0 General Requirements

1.01 Always follow the manufacturer's recommendations for setting up and operating equipment, selection of tip size, and gas cylinder operating pressures.

1.02 Always use a regulator to reduce gas cylinder pressure to the operating pressures recommended by the equipment manufacturer. All piping and equipment must meet the standards of the Compressed Gas Association.

1.03 Always ensure that all connections are leak tight. Each time connections are loosened and retightened each connection should be checked with a soap and water solution (oil free soap). Do not check with flame.

1.04 Before "lighting up" clear out each line by letting a small amount of gas flow (separately) to remove any mixed gases that might be in the lines.

1.05 Never use defective, worn or leaky equipment. Repair it or take it out of service.

1.06 Never use acetylene in excess of 15 psi pressure. Higher pressures with acetylene are dangerous. If the cylinder is not fitted with a hand wheel valve control, any special wrench required must be placed on the cylinder while the cylinder is in service. On manifolds, one wrench for each manifold will suffice.

1.07 Always have an appropriate fire extinguisher in good operating condition readily available when operating welding or cutting equipment.

1.08 Never perform welding, cutting, brazing, or heating operations in a poorly ventilated area. Avoid breathing fumes from these operations at all times, particularly when zinc, cadmium, or lead coated metals are involved.

1.09 Never perform welding or cutting operations near combustible materials (gasoline cans, paints, paper, rags, etc.).

1.010 Always protect yourself, others present, welding hoses, gas cylinders, and flammable materials in

the area from hot slag and sparks from the welding and cutting operations.

1.011 The welder and spectators must always wear goggles to protect the eyes from injurious light rays, sparks and hot molten metal during welding, cutting, and heating operations. Eye protection must comply with the established ANSI Standards.

1.012 Always wear clean, oil free clothing during welding and cutting operations. Protect the hands with leather welding gloves to avoid burns from radiation and hot molten slag. Low cut shoes and trousers with cuffs or open pockets should not be worn.

1.013 Never use a match or cigarette lighter to light a cutting or welding torch. Always use a spark igniter. Fingers are easily burned by the igniting gas when a match or cigarette lighter is used.

1.014 Ensure that the material being welded or cut is secure and will not move or fall on anyone.

1.015 Never use a welding, cutting, or heating torch on a container that has held a flammable liquid. Explosive vapors can accumulate and linger in closed containers for extended periods of time.

1.016 Never use a regulator for gasses other than those for which it was designed for by the manufacturer since the diaphragm and seat materials may not be compatible with other gasses.

1.017 Never attempt to adapt and use a fuel gas or inert gas regulator on an oxygen cylinder. A special protective device is incorporated on the oxygen regulator to harmlessly dissipate the heat caused by the recompression when the cylinder valve is quickly opened. Such a protective device is not furnished on fuel gas and inert gas regulators.

1.018 Never tamper with the safety devices on cylinders, fuse plugs, safety discs, etc. and do not permit torch flames or sparks to strike the cylinder.

1.019 Always refer to the various gasses by their proper names. (Do not refer to oxygen as “air” or acetylene as “gas”.)

1.020 All cylinders, particularly acetylene, should be restrained securely in an upright position to prevent accidents. It also can cause voids in the porous material inside the cylinder, which can lead to acetylene explosions.

1.021 Store all gas cylinders not in use away from excessive heat sources, such as stoves, furnaces, radiators, the direct rays of the sun, and the presence of open flames. Cylinders in storage should always be secured in an upright position.

1.022 Keep all burning or flammable substances away from the oxygen or fuel gas storage area (at least 20 feet) and post “No Smoking” signs.

1.023 Notify Superintendent of any Hot Work and obtain a hot work permit and review, complete, and sign. Adhere to requirements of hot work permit and provide proper protection, fire extinguisher and fire watch.

1.024 Upon completion of a welding, heating, or cutting operation immediately inspect the surrounding areas for smoldering embers. Allow one full hour to elapse before leaving the area and conduct another thorough inspection just before leaving. Also alert other personnel of fire possibilities.

1.025 Always have the properly fitted wrench to fasten a regulator to a cylinder. Never tighten the

regulator by hand.

1.026 Always leave the fuel gas cylinder valve wrench in place when the cylinder valve is open so that it can be closed quickly in an emergency. Do not open acetylene valves more than one-quarter (1/4) turn.

1.027 Before connecting a regulator to a gas cylinder, open the cylinder valve for a moment. Called cracking the cylinder valve, this will blow out any foreign material that may have lodged in the valve during transit. Do not stand in front of the valve when “cracking”.

1.028 After attaching a regulator to a gas cylinder, be sure the regulator adjusting screw is fully released (backed off in a counter-clockwise direction so that it swivels freely) before the cylinder valve is opened. Never stand in front of a regulator when you are opening a cylinder valve.

1.029 Always open the cylinder valve slowly so that gas pressure will build up slowly in the regulator (particularly in the oxygen cylinder). Quick opening of the cylinder valve causes a build-up of heat due to recompression of the gas. When combined with combustible materials, ignition and explosion may result.

1.030 If a leak develops in a fuel gas cylinder that cannot be stopped by closing the valve, immediately place the cylinder outside of the building away from possible fire or ignition sources in a location that is free from wind currents that might carry the gas to an ignition source.

1.031 Never attempt to mix gasses in a cylinder or fill an empty one from another (particularly oxygen cylinders). Mixture of incompatible gasses and/or heat caused by recompression of the gas or gasses may result in ignition and fire. Only the owner of a cylinder may mix gasses in it.

1.032 When a gas cylinder is ready for return to the supplier, be certain the cylinder valve is closed to prevent internal contamination and the shipping cap is in place to protect the cylinder valve. Identify empty cylinders.

1.033 Never use oxygen or other gasses as a substitute for compressed air in operation of air-operated tools, blowing off parts, or for ventilation purposes. The only exception to this rule is where oxygen is used to blow out port passages and talcum powder or dust from welding hoses when setting up new or old “dusty” equipment.

1.034 Do not attempt to do your own repair on welding equipment. Equipment that is improperly repaired can cause leaks and other hazardous conditions. Repairs must be performed by qualified repair personnel.

1.035 Never repair welding hose with tape. Use of tape and many hose splicers can reduce the pressure to the torch and can cause hazardous conditions. Welding hose must meet the specifications of the Compressed Gas Association.

1.036 Use the shortest length of hose possible. Longer hoses require higher gas pressures and can be hard to handle.

1.037 Never use oil or grease on any part of welding or cutting equipment and never let it come into contact with oil or grease. This includes gas cylinders, work bench, regulators, torches, tips,

threads on bottles, and clothes that are worn, such as jackets, gloves, and aprons. Oxygen and oil or grease can cause explosions and fire.

1.038 Never use a hammer on the valve cover caps to loosen them. Use a piece of wood to soften the impact and prevent sparks and damage to the cap.

1.039 When moving gas cylinders always roll them on their bottom edges or in a cart designed for their movement. Sliding or dragging them or rolling causes excessive wear and may weaken their walls by metal erosion. Slings and electromagnets are not authorized when transporting cylinders.

1.040 Never use cylinders as rollers to move material. Do not let them bump into each other or let them fall.

1.041 Fuel gas and liquefied fuels must be stored and shipped valve end up.

1.042 Do not hammer on any cylinder. Do not tamper with the relief valves. If you have trouble, contact the supplier for assistance.

1.043 Suitable eye protection must be worn for all welding and cutting operations.

1.044 Cylinders must be secured. Valves must be closed when unattended and caps must be on the cylinders when the regulators are not on the cylinders.

1.045 Cylinders must be upright when they are transported in powered vehicles.

1.046 All cylinders with a water weight of over 30 lbs. must have caps or other protection.

1.047 All fuel gases must be used through a regulator on cylinder or manifold.

1.048 Compressed gas cylinders must be upright except for short periods for transportation.

1.049 Don't tamper with the valves or safety devices. Leave the protective cap in place while storing or moving ylinders.

1.050 Before installing gauge and regulator, crack valve momentarily to clear any foreign material.

1.051 Repair work on gauges and regulators must be done by qualified personnel.

1.052 Only 4 inches of hose per foot may be covered with tape. Defective hoses must be removed from service.

1.053 Oxygen must not be used for ventilation.

1.054 Oxygen regulators must be marked “Use No Oil”. Regulators and fittings must meet the specifications of the Compressed Gas Association.

1.055 Union nuts on regulators must be checked for damage.

1.056 Before removing a regulator, shut off cylinder valve and release gas from regulator. Equipment must be used only as approved by the manufacturer.

1.057 Caps must be on cylinders unless they are transported on a special carrier.

1.058 Hot warnings on materials are required.

1.059 Fire is the biggest hazard in welding. The area should be cleared for a radius of 35 feet. Fire shields should be used. The area should be monitored for 60 minutes or more after end of work to ensure there is no delayed ignition.

1.060 Proper personal protective equipment must be worn by all welders and assisting personnel.

1.061 All welding personnel should be advised of the hazards from heating zinc, lead, cadmium, and any other substances that could cause health problems from the welding activity.

2.0 Arc Welding

1.01 Chains, wire ropes, hoists, and elevators must not be used to carry welding current.

1.02 Leather capes should be used for overhead welding.

1.03 The neck and ears must be protected from the arc.

1.04 Conduits with electrical conductors in them must not be used to complete a welding circuit.

1.05 Welding shields must be used to protect other workers from injurious light rays.

1.06 Welding leads must be inspected regularly for damage to insulation. Only proper splicing will be authorized. There should be no splices in stinger lead within 10 feet of the stinger and the leads should never be wrapped around the body.

.

Health

First Aid Training, Kits And Poster

Purpose

To afford employees immediate and effective attention should an injury or illness result.

Scope

To meet the above objectives, the following procedures will be followed:

- All supervisors or persons in charge of crews will be first aid trained unless their duties require them to be away from the jobsite. If so, other persons who are certified in first aid will be designated as the recognized first aider.
- Valid first aid cards are recognized as ones that include both first aid and cardiopulmonary resuscitation (CPR) and have not reached the expiration date.
- First aid training, kits, and procedures will be in accordance with the requirements of the general safety and health standards (WAC 296-800).

Requirements

1.0 First Aid Kits and Stations

a. First aid kits on core and shell projects are located in the field trailer. First aid kits on Tenant Improvement projects are located at the field office. The project superintendent will notify employees and subcontractors of these locations.
b. The project foreman is designated to ensure that the first aid kits are properly maintained and stocked. Contact the Safety Department for assistance.

2.0 Posters and Information

- Posters listing emergency numbers, procedures, etc., are located on the safety board.

Purpose

The following hazardous chemical communication program has been established To make sure that all affected employees know about information concerning the dangers of hazardous chemicals used. This written program will be available in our Safety folder and available for review by any interested personnel.

Policy

Foushée is committed to the prevention of exposures that result in injury and/or illness; and to comply with all applicable state health and safety rules.

Requirements

1.0 Container Labeling

1.01 The chemical manufacturer, importer, or distributor must ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked. Hazards not otherwise classified do not have to be addressed on the container. Where the chemical manufacturer or importer is required to label, tag or mark the following information must be provided:

a. Product identifier
b. Signal word
c. Hazard statement(s)
d. Pictogram(s)
e. Precautionary statement(s)
f. Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

2.0 Safety Data Sheets (SDS)

2.01 Copies of SDS's for all hazardous chemicals in use will be maintained at each jobsite and in the Safety folder. SDS's will be available to all employees during each work shift. If an SDS is not available or a new chemical in use does not have an SDS, immediately contact the Project Superintendent or Safety Director.

3.0 Employee Information and Training

3.01 Each new employee will attend a health and safety orientation that includes information and training on the following:

- An overview of the requirements contained in the Hazard Communication Standard.
- Hazardous chemicals present at his or her work places.
- Physical and health risks of the hazardous chemical.
- The symptoms of overexposure.
- How to determine the presence or release of hazardous chemicals in his or her work area.
- How to reduce or prevent exposure to hazardous chemicals through use of control procedures, work practices, and personal protective equipment.
- Steps the employer has taken to reduce or prevent exposure to hazardous chemicals.
- Procedures to follow if employees are overexposed to hazardous chemicals.
- How to read labels and review SDSs to obtain hazard information.
- Location of the SDS file and written hazard communication program.

- An overview of the requirements contained in the Hazard Communication Standard.
- Before introducing a new chemical hazard into any section of this employer, each employee in that section will be given information and training as outlined above for the new chemical.

4.0 Hazardous non-routine tasks

4.01 Periodically, employees are required to perform hazardous non-routine tasks. (An example of a non-routine task is confined space entry.)

4.02 Prior to starting work on such projects, each affected employee will be given information by the Project Superintendent.

5.0 Multi-employer work places

5.01 It is the responsibility of the Superintendent to provide employers of any other employees at the work site with the following information:

- Copies of SDS's (or make them available at a central location) for any hazardous chemicals that the other employer(s)' employee may be exposed to while working.
- Inform other employers of any precautionary measures that need to be taken to protect employees during normal operating conditions or in foreseeable emergencies.
- Provide other employers with an explanation of the labeling system that is used at the work site.

6.0 List of hazardous chemicals

- A list of hazardous chemicals will be maintained on each project.

Chemical Name	Manufacturer	Location Used
(Insert information here)	*(Insert information here)*	*(Insert information here)*

7.0 Hazard Communication checklist

____ 1. Have we prepared a list of all the hazardous chemicals in our workplace?

____ 2. Are we prepared to update our hazardous chemical list?

____ 3. Have we obtained or developed a safety data sheet for each hazardous chemical we use?

____ 4. Have we developed a system to ensure that all incoming hazardous chemicals are checked for proper labels and data sheets?

____ 5. Do we have procedures to ensure proper labeling or warning signs for containers that hold hazardous chemicals?

____ 6. Are our employees aware of the specific information and training requirements of the Hazard Communication Standard?

____ 7. Are our employees familiar with the different types of chemicals and the hazards associated with them?

____ 8. Have our employees been informed of the hazards associate with performing non-routine tasks?

____ 9. Are employees trained about proper work practices and personal protective equipment in relation to the hazardous chemicals in their work area?

____ 10. Does our training program provide information on appropriate first aid, emergency procedures, and the likely symptoms of overexposure?

____ 11. Does our training program include an explanation of labels and warnings that are used in each work area?

____ 12. Does the training describe where to obtain data sheets and how employees may use them?

____ 13. Have we worked out a system to ensure that new employees are trained before beginning work?

____ 14. Have we developed a system to identify new hazardous chemicals before they are introduced into a work area?

____ 15. Do we have a system for informing employees when we learn of new hazards associated with a chemical?

Purpose

This Hearing Loss Prevention Program is designed to protect employees from the effects of exposure to excessive noise at Foushée and comply with the DOSH Hearing Loss Prevention Rule (Noise) WAC 296-817. Foushée performs sound level monitoring of its projects, and equipment to identify potential areas of noise exposure.

Policy

This requirements applies to all Foushée jobsites.

Procedures

1.0 Introduction

1.01 Elements of Foushée's Hearing Loss Prevention Program include the following:

- Identify noise areas and/or noise levels of areas and equipment
- Where hearing protection is required and who must wear it.
- What specific hearing protection is provided.
- How audiometric testing is provided.
- How training is provided to those employees exposed to excessive noise.
- Where noise measurement results and audiometric testing records are kept and how employees will have access to or be provided with these records.

2.0 Noise Areas and Measurements

2.01 Noise measurements are maintained in a separate log. Consult Safety Department for records.

Date	Area/Location	Equip/Job Duties	Noise level (dBA)	Superintendent

Noise level measurements were taken with a **REED Instruments R8050 Sound Level Meter**.

3.0 Hearing Protection Used at Foushée

3.01 The following hearing protection is provided to employees at Foushée. Employees will be allowed to select their choice of hearing protection in the size that fits them correctly.

Brand name of hearing protection	Sizes available
• Howard Leight – ear plugs	One-size fits all
• 3M – ear plugs	One-size fits all
• E-A-R – ear plugs	One-size fits all

3.02 Hearing protection is available from the following person(s) or at the following locations:

- **Project Superintendent, Foreman @ field trailer or field office. Contact Foushée Safety Department for questions on type/ordering.**

3.03 Hearing protection is required in the following locations, job duties or when the following type of equipment is used, examples of equipment and job duties include:

1. Carpenters using circular saws, screw guns, chop saw, screw gun, powder actuated tool.
2. Laborers using rotohammers, chipping concrete, grinding, screw gun, chop saw, rattle gun, powder actuated tool.
3. Heavy equipment or machinery.
4. Fuel-powered hand tools.
5. Compressed air-driven tools.
6. Demolition activity.
7. Noise in the workplace that interferes with people speaking, at close range.
8. Manufacturer information of equipment that indicates high noise levels for machines.

3.04 Warning signs will be posted for areas where noise levels equal or exceed 115 dBA.

3.05 Warning signs will be posted at the entrances or boundaries of well defined work areas where employees may be exposed to noise that equals or exceeds 115 dBA measured using a sound level meter with slow response.

3.06 Warning signs will clearly indicate that the area is a high-noise area and that hearing protection is required.

4.0 Audiometric Testing at Foushée

4.01 Audiometric testing will be provided to employees whose noise exposure equals or exceeds an 8-hour average of 85 decibels who have the following work classifications:

- Carpenters
- Laborers
- Superintendent
- Foreman

4.02 Additionally, audiometric testing will be provided to all employees who might be exposed to working in high level noise areas or in the following job classifications. The following activities represent normal work activities:

1. Carpenters using circular saws, screw guns, chop saw, screw gun, powder actuated tool.
2. Laborers using rotohammers, chipping concrete, grinding, screw gun, chop saw, rattle gun,
3. powder actuated tool
4. Heavy equipment or machinery
5. Fuel-powered hand tools
6. Compressed air-driven tools
7. Demolition activity
8. Noise in the workplace that interferes with people speaking, at close range.
9. Manufacturer information of equipment that indicates high noise levels for machines.

4.03 Audiometric testing will be provided upon first assignment to a high noise area that equals or exceeds 85 dBA TWA's or within 180 days of assignment. These initial tests are the baseline results. Annual testing following these initial tests will be compared to the baseline test results for all employees who continue to work in high noise areas.

4.04 The Foushée Safety Director will schedule audiometric testing for employees.

4.05 For baseline tests, employees will be instructed to avoid unprotected exposure to high noise levels at least 14 hours before testing is done.

4.06 If a standard threshold shift (*a drop in hearing ability of at least 10 decibels in three frequencies – 2000, 3000 or 4000 hertz*) is found, the employee may be retested within 30 days. (note: retesting is optional).

4.07 Employees will be provided with results of their individual audiometric exams. If a standard threshold shift is found, employees will be notified in writing within 21 days of determination.

4.08 If a standard threshold shift is found in any employees, the following will also be done:

- The employee not wearing hearing protection will be provided them.
- The employee already using hearing protection will be re-fitted and re-trained.
- The employee will be referred to audiologist or ear, nose & throat specialist for further evaluation.
- The employee will be informed of a need for an ear exam if a medical cause unrelated to noise exposure is suspected.

4.09 Audiometric testing will be conducted by a licensed or certified audiologist, ear, nose & throat physician (otolaryngologist) or audiology technician certified by the Council of Accreditation in Occupational Hearing Conservation (CAOHC).

4.010 Audiometric testing will be conducted by Integrity Safety.

5.0 Training

5.01 Training will be provided to all employees exposed to noise above an 8-hour average of 85 decibels. Training will cover the following topics:

- The effects of noise on hearing

- The purpose of hearing protectors, the advantage and disadvantages of various types, and instructions on how to use and care for them,
- The purpose of audiometric testing and how it is done,
- Employee access to records.

5.02 Our training program is described as follows:

5.011 The effects of noise on hearing (including both occupational and non-occupational exposures).

5.012 Review noise controls to implement if required.

5.013 The purpose of hearing protectors: The advantages, disadvantages, and attenuation of various types.

5.014 Instructions about selecting, fitting, using, and caring for hearing protection.

5.015 The purpose and procedures for program evaluation and audiometric testing and hearing protection.

5.016 The employees' right to access records kept by the employer.

5.017 Summary provided upon results of audiograms are evaluated.

5.018 For questions related to noise or audiometric testing, employees can see the Foushée Safety Director.

6.0 Access to Records

6.01 Noise measurement records can be viewed at the Foushée Safety Office or obtained from the following person(s): Rob Virtue or Dick Beith.

6.02 Personal audiometric exam results will be given or mailed directly to individual employees tested.

Use Table 1 to help you determine the hearing loss prevention requirements for your workplace:

Table 1 Noise Evaluation Criteria

Criteria	Description	Requirements
85 dBA TWA_8	Full-day employee noise exposure dose. If you have one or more employees whose exposure equals or exceeds this level, you must have a hearing loss prevention program.	Hearing protection Training Audiometric testing
90 dBA TWA_8	Full-day employee noise exposure dose. If you have one or more employees whose exposure equals or exceeds this level, you must reduce employee noise exposures in the workplace.	Noise controls Hearing protection Training Audiometric testing
115 dBA measured using slow response	Extreme noise level (greater than one second in duration).	Hearing protection Signs posted in work areas warning of exposure
140 dBC measured using fast response	Extreme impulse or impact noise (less than one second in duration).	Hearing protection

[Statutory Authority: RCW 49.17.010, .040, and .050. 15-23-086 (Order 14-16), § 296-817-100, filed 11/17/15, effective 12/17/15. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 03-11-060, § 296-817-100, filed 5/19/03, effective 8/1/03.]

Outdoor Heat Exposure Addendum

(May – September*)

Policy

To prevent heat-related illnesses and injuries.

Purpose

The Outdoor Heat Exposure section establishes safe working guidelines for employees working in hot or cold environments that could result in illness.

Procedure

1.0 General Requirements

1.01 Which workers does this program cover?

a. Anyone working outdoors more than 15 minutes in any 60-minute period in temperatures:
   - As low as 52°F when wearing clothing that is non-breathable or provides a vapor barrier like rain gear, chemical resistant suits, or Level A suits.
   - Starting at 77°F when wearing double layer woven clothing like sweatshirts, coveralls, and jackets on top of other clothes.
   - At 89°F when wearing any other type of clothing like typical shirts and pants.
   - Some individuals are more susceptible to heat stress than others. For example, individuals who aren't acclimatized or who come to work dehydrated.

b. Workers doing the following jobs or tasks at our worksites are considered to meet the descriptions above:
   - Job: craft workers performing work that meets or exceeds the outdoor temperatures and activities identified above (52°F, 77°F, 89°F) includes laborers, carpenters, forklift operators, form work, pouring/finishing decks, and miscellaneous activity.

2.0 Prevention measures to follow:

2.01 Workers and supervisors share responsibility for safety at the jobsite. This includes watching out for yourself and others because heat illness can become a life-threatening condition quickly if unnoticed or ignored. Speak up if you notice anything that could be unsafe or result in someone getting hurt or sick.

3.0 Setting up the worksite for shade

3.01 Crew trailers are available as break areas on each new construction jobsite.

3.02 The supervisor will identify break areas for shade on jobsites to include temporary structures, walls, trees or set up a portable canopy if needed.

3.03 Tenant Improvement remodeling projects in occupied buildings have conditioned spaces. Start the day safe, do the work safe and go home safe.

Purpose

The purpose of this section is to ensure that all Foushée employees, subcontractors and vendors are provided a safe work environment free from recognized hazards likely to cause serious illness. Safe planning, notification, and training will be provided and documented.

Policy

This protocol applies to all field and office operations that involve company personnel and subcontractor employees or vendors. This program will be reviewed no less than annually and evaluated and revised as warranted or when required by local health care jurisdiction.

Guidelines

The following guidelines may help prevent workplace exposures to acute respiratory illnesses including COVID-19.

1.0 General Requirements

1.01 Designated contact of this plan

1.02 The Safety Director and President/CEO will maintain and keep up to date the Infectious Disease Protocols for Foushée and provide education and retraining when revisions are made to this plan.

2.0 Communication of information

2.01 Information will be communicated by the President/CEO, Safety Director and Operation Managers to all Foushée employees, subcontractor and vendor personnel.

2.02 Sick Leave benefits

2.03 Employees are entitled to accrue paid sick leave on your date of employment at one (1) hour of paid sick leave for every 40 hours you work. You may use this accrued paid sick leave for the following reasons (as outlined at RCW 49.46.210(1)(b) and (c)):

2.04 To care for yourself or a family member;

2.05 In the event our business or your child's school or place of care is closed by order of a public official for any health-related reason.

2.06 Foushée reserves the right to adjust sick leave benefits during public health-related outbreaks and on a case by case basis that permit employees to stay home if they are ill or may need to stay at home to care for a sick child or other sick family member.

3.0 Sending employees home

3.01 Employees who have symptoms of acute respiratory illness should stay home and not come to work until they are free of fever (100.4° F [37.8° C] or greater using an oral thermometer), signs of a fever, and any other symptoms for at least 24 hours, without the use of fever-reducing or other symptom-altering medicines (e.g. cough suppressants). Employees should notify their supervisor and stay home if they are sick.

3.02 What are the symptoms (COVID-19)

3.03 The following symptoms may appear 2-14 days after exposure.

- Fever

- Cough
- Shortness of breath

4.0 Response plan

4.01 If there is a “verified” exposure or risk, we will initially shut down the main office and / or field office(s) for 24-48 hours to determine appropriate next steps. A notice will go out to all staff, just like a snow day.

4.02 For confirmed exposures or significant risks beyond a single individual, the office may need to close for an extended time, which could last for two weeks, or longer.

4.03 After confirmed exposure cleaning of the main office and / or field office(s) will be conducted by a cleaning service to fully disinfect the environment and before anyone is allowed back inside the office.

4.04 During any shutdown, all staff will be expected to continue work remotely and be accessible during regular business days and hours.

4.05 Each Department Supervisor has prepared a plan to continue their department’s operations in the event of a shutdown. This may include remote meetings, calls, and remote access to critical information systems. Arrangements are currently being made to set up laptops and network access for staff as needed.

4.06 If you have any questions about how you would continue working remotely at home during a closure, please talk to your supervisor, now. Do not wait until we are in a shutdown situation to figure this out.

4.07 To assure effective management and to provide everyone the best information available, the following risk management task force will convene daily:

- Eric Jones
- Lisa Koch
- John Dolence
- Olin Wick
- Rob Virtue
- Eric Duncan
- Joel Koch

4.08 The task force is chartered to provide guidelines, for business continuity and to ensure no loss of productivity.

5.0 Continuing operations

5.01 If you feel sick, stay home. Please let your immediate supervisor know, as usual.

5.02 Handwashing. Continue regular handwashing by all employees. This remains essential in preventing the spread of disease.

5.03 Disinfect. Continue sanitizing your personal space regularly using regular household cleaning wipes and/or disinfectant spray & paper towels, provided throughout the office. Wipe down tables and chairs with disinfectant before and after any meetings (meetings will be limited, see below).

5.04 Hand Sanitizer. Continue regularly using hand sanitizer, when handwashing is not possible.

5.05 In-House Meetings. In-house meetings will be limited. Non-critical meetings may be cancelled,

and employees will be notified.

5.06 External Meetings. Non-critical meetings in the office with outside parties, customers, or vendors should be reviewed for necessity and taken on-line if possible. Field meetings may continue but should be limited those necessary to continue work, including regular safety meetings.

5.07 Temperature. We suggest and request that you please take your temperature regularly at home before coming to work.

6.0 Point of Contact

Your direct supervisor will be the point of contact for any reporting about sicknesses or potential exposures. In the event you are unable to contact your direct supervisor, contact your PIC or Safety Director.

7.0 Separate sick employees (COVID-19)

CDC recommends that employees who appear to have acute respiratory illness symptoms (i.e. cough, shortness of breath) upon arrival to work or become sick during the day should be separated from other employees and be sent home immediately. Sick employees should cover their noses and mouths with a tissue when coughing or sneezing (or an elbow or shoulder if no tissue is available).

8.0 When do I seek medical evaluation and advice (COVID-19)

If you have symptoms like cough, fever, or other respiratory problems, contact your regular doctor first. Do not go to the emergency room. Emergency rooms need to be able to serve those with the most critical needs. If you have difficulty breathing, it doesn't mean you have novel coronavirus, but you should call 911.

If you're over 60 and you have underlying conditions like diabetes, heart disease, and lung disease, come up with a plan with your doctor to identify your health risks for coronavirus and how to manage symptoms. Contact your doctor right away if you do have symptoms.

If you have symptoms and you were exposed to someone confirmed to have the virus, call both your health care provider and our King County Novel Coronavirus Call Center at 206-477-3977.

9.0 How can I protect myself from (COVID-19)

It's important that everyone take steps to reduce the spread of novel coronavirus, especially to protect those who are more vulnerable. Steps you can take to prevent spread of flu and the common cold will also help prevent coronavirus:

- wash hands often with soap and water for at least 20 seconds. If not available, use hand sanitizer.
- avoid touching your eyes, nose, or mouth with unwashed hands
- avoid contact with people who are sick
- stay home while you are sick and avoid close contact with others
- cover your mouth/nose with a tissue or sleeve when coughing or sneezing

10.0 Who should get tested (COVID-19)

10.01 Not everybody who feels ill needs to be tested, particularly if you have mild illness. Healthcare providers determine who should be tested.

10.02 If you are sick with fever, cough or shortness of breath and are in a high-risk group, call your

healthcare provider to discuss whether you should be tested for COVID-19.

10.03 People at high risk for complications from COVID-19 are:

- People older than 60 years
- People with chronic medical conditions
- People with weakened immune systems
- Pregnant people

10.04 Other people with mild illness who are concerned about their health can call their healthcare provider to discuss COVID-19 testing and other possible reasons for their illness.

10.05 Employee disclosure of potential exposure and protocol (COVID-19)

10.06 Notify your supervisor if you test positive for COVID-19. In the event you are unable to contact your direct supervisor, contact your PIC or Safety Director.

10.07 Stay at home until instructed to leave: Patients with confirmed COVID-19 should remain under home isolation precautions until the risk of secondary transmission to others is thought to be low.

10.08 Talk to your healthcare provider: The decision to discontinue home isolation precautions should be made on a case-by-case basis, in consultation with healthcare providers and state and local health departments.

10.09 Circumstances allowing employees to return to work (COVID-19)

10.010 Employees may return to work once they are free of symptoms of acute respiratory illness with no fever (less than 100.4 F), cough, or shortness of breath for at least 24 hours.

10.011 If you are a close contact of someone with COVID-19 and develop symptoms of COVID-19, call your healthcare provider and tell them about your symptoms and your exposure. They will decide whether you need to be tested, but keep in mind that there is no treatment for COVID-19 and people who are mildly ill are able to isolate at home.

10.012 If you are a resident in a community where there is ongoing spread of COVID-19 and you develop COVID-19 symptoms, call your healthcare provider and tell them about your symptoms. They will decide whether you need to be tested, and people who are mildly ill are able to isolate at home.

11.0 Mold Risk Control Policy

11.01 Guidelines

1. Install all materials and equipment according to the plans, specifications and other contract documents, and,

2. As best as practicable keep construction materials dry before and after permanent installation.

12.0 Water, Moisture, Humidity

12.01 During construction, protect materials from water damage and ~~to~~ handle them in accordance established manufacturer requirements and ~~to~~ install in accordance with the contract documents and manufacturer's instructions.

12.02 Account for any water that a construction process may require. Water leaks from supply hoses and piping for masonry and grouting mixes can infiltrate into finished walls and floors.

12.03 Develop a plan for protecting materials from water damage. Pay attention to procuring

materials, and laydown and storage on the construction site.

12.04 Establish procedures for checking materials for water damage before accepting their delivery to include procedures for procedures for keeping drywall, ceiling tiles, insulation and other porous materials dry and porous materials that may become wet.

12.05 Each project should have basic protocol for dealing with any large and unexpected water intrusion into completed portions of the building.

13.0 Potential Water Infiltration Points

13.011 Building Envelope. The building envelope must be continuous in order to provide a solid shield to water entry. The transition points of each material are significant risk areas and designing multiple materials into the envelope will multiply the risk. Flashings and material joints are particularly important.

13.012 Windows and Doors. Almost all openings provide opportunities for water intrusion.

13.013 Roofing Systems. These systems are among the most important barriers to water penetration. Because they are impermeable, roofing systems also trap moisture inside a building. Owners also need to ensure that the roof design and installation both follow the manufacturer's instructions.

13.014 HVAC Systems. HVAC systems, plumbing systems and skylights require penetrations through the roof system. The Project Team should be sure that installations are in accordance with the contract documents, and that damage to the completed roofing system is avoided.

13.015 Vertical Enclosure Systems. Virtually all vertical enclosure systems absorb moisture or permit it to penetrate, not because they are poorly designed or constructed, but because virtually all of them are made up of several different materials

13.016 Masonry systems should have weeps that will allow any moisture that migrates to the inside of the masonry wall to drain out. If the plans and specifications call for weep holes in a masonry wall, they must be included. Ensure that excess mortar does not somehow block the weep holes.

13.017 All glass and metal curtain wall systems should have drainage weeps. The difference in the amount of expansion and contraction between glass and aluminum in the same exposure to sun is significant and attachments and sealant systems must be installed correctly.

13.018 The very nature of the EIFS system requires it to include a drain-board system that will allow trapped moisture to escape.

13.019 Over time, the shrinking and swelling of hard-board systems also require these systems to allow for the natural drainage of any penetrating moisture.

13.0110 In many parts of the country with naturally high humidity, and a high potential for thermal condensation, pre-cast concrete wall systems should have drip pans on the inside face to gather and drain moisture.

13.0111 HVAC Systems. These mechanical systems can either decrease or increase the risk of moisture problems. The subcontractor should check any insulated ducts for any signs of water damage before installing them. Lined ducts can become breeding grounds for mold if they become wet.

13.0112 Plumbing. Most plumbing is hidden within the walled spaces in buildings. Leaks can cause significant problems that can easily go undetected. Owners and design professionals should therefore pay close attention to how they design the plumbing system, and subcontractors should ensure that pipes do not leak. Some common problems include too little insulation on cold water pipes, drains that are clogged or left unconnected, vents that fail to exit the structure, and nails, screws and other fasteners that penetrate pipes.

13.0113 Duct Chases and Elevator Shafts. Owners and their design professional might do well to consider water or mold-resistant products for these chases and shafts, and both sump pumps and moisture alarms for the elevator pits.

13.0114 Site Drainage Systems. The scope of the construction work should expressly include any site work necessary to move water away from the building during construction. The owner and its design professional also need to ensure that the civil plans and actual conditions will drain moisture and water away from the building after the subcontractor completes it.

13.0115 Foundation Damp Proofing. Pay attention to foundation work, making sure that the ground has been properly leveled and properly covered with gravel, mirafy cloth, or similar. The subcontractor also must pay attention to any crawl space that has a dirt floor. It is important to keep moisture in the soil and out of the building.

13.0116 Interior Walls. Paper-backed gypsum board contains adhesives and cellulose on which mold can feed on. Other composite materials, such as, particleboard, OSB, and similar products, contain resins that can support mold. Vinyl wall coverings can condense the water vapor in drywall and encourage mold to grow in wall cavities or on insulation. Foil-faced fibrous cavity insulation and foil-backed gypsum sheathing can also keep buildings from drying out when they get wet.

14.0 If Mold is Found during Construction

14.01 The Project Team should pay attention to and report any visible signs of mold or other fungi growing on any stored or installed materials. Quick recognition and rapid response to any water event can make the difference between a routine repair and mold remediation. To prevent mold from growing, it is strongly recommended that wet materials be dried within 48-hours.

14.02 It the past, it was common to clean moldy materials with bleach. Bleach does not kill the mold inside a material. It cannot prevent a mold problem from recurring.

- Guidelines for Cleaning Mold
- Contact Foushée Safety Department for training and procedures prior to cleaning mold.
- Notify Operations Manager of any mold issue.

14.01 Size the Moldy Area

- Decide if you have a large or small area of mold. A small area is less than about ten square feet, or a patch three feet by three feet square. To clean a small area, follow the advice below. You may use a cotton face mask for protection.

14.02 If you have a lot of mold damage (more than ten square feet) consider hiring a cleaning professional. If the moldy area has been contaminated by sewage or is in hidden places, hire a professional.

14.03 Use Protection
Wear goggles, gloves, and appropriate NIOSH rated respiratory protection while working in the area.

14.04 Seal the Area
Seal off area. Cover heat registers or ventilation ducts/grills. Open a window or provide adequate ventilation/exhaust before you start to clean up.

14.05 Remove Items

- Remove all furnishings to a mold-free area. Clean the surrounding moldy area then follow cleaning directions below for the items you removed and the new space.

14.06 Bag Moldy Trash
Bag all moldy materials and tie off the top of the bag. Bring them outdoors and place in

garbage container right away.

14.07 Manually Clean Surfaces

- Borate-based solution cleaning WA DOH
- First wash with a mild detergent solution, such as laundry detergent and warm water. Allow to dry.
- (Optional step) Then wipe with a solution of 1/4 cup bleach to one gallon of water. Wait 20 minutes and repeat. Wait another 20 minutes.
- Last apply a borate-based detergent solution and don't rinse. This will help prevent mold from growing again. A borate-based laundry or dish washer detergent has "borate" listed on the ingredients label.

14.08 Clean and Wash
Give the entire area a good cleaning, vacuum floors, and wash any exposed bedding or clothing.

14.09 Monitor
Check regularly to make sure mold has not returned to the clean-up area.

14.010 Anti-microbial cleaning guidelines from NVL

Manually clean areas with suspect growth using the technique below.

1. Wet surfaces using a sprayer and an approved anti-microbial solution. Prepare the solution as per manufacturer instructions. Options for previously approved anti-microbial products are below.

2. Scrub surfaces using a hard-bristled brush (metal or nylon) to remove superficial growth and work the anti-microbial agent into the substrate material.

3. Wipe surfaces with clean rags to remove fungal structures and discoloration.

14.011 Approved anti-microbial products:

- Fiberlock *IAQ 2000 Disinfectant http://www.fiberlock.com/mold/8320.html*
- Fiberlock *Shockwave* http://www.fiberlock.com/mold/8310.html

14.012 Workers should use PPE including disposable body coverings, disposable gloves, and N95 respirators or greater level of protection.

14.013 Use heaters, fans, and dehumidifiers to dry all the materials to a moisture content of 18% or less.

14.014 Use a HEPA filtered negative air machine to remove any fungal spores from air circulation. This should be run in the area where work is occurring.

15.0 Project Team Checklist

15.01 This checklist is a tool to assist the Project Team in managing its responsibility to maintain safe premises, practices, operations and equipment. The checklist does not cover all possible hazardous conditions or unsafe acts or conditions that may exist.

15.02 Project Team trained in importance and methods of preventing mold growth.

15.03 Keep interior materials dry - prior to, during and after installation, especially drywall

15.04 Do not install wet building materials

15.05 Report any water damage, leaks or intrusion to project manager immediately

15.06 Dry-out any water damaged materials as soon as possible

15.07 Build in strict accordance with designs specifications and codes

15.08 Immediately alert architects to designs that may allow water intrusion or moisture accumulation

15.09 Question "conceptual only," inadequate architectural detailing or outright improper building plans

15.010 During the design phase, carefully review the details with specific attention to ensuring an impermeable envelope.

15.011 On a renovation or addition, carefully survey the existing building before construction begins. Look for discoloration in finished surfaces or a musty smell. It is possible that a pre-existing mold problem can become the contractor's problem once construction begins.

15.012 Develop the project schedule with envelope construction completion as a predecessor to installation of finishes. This may be impossible on some projects; if so, have a detailed weather protection plan for all areas of exposure and establish a sufficient budget to implement the plan.

15.013 Establish a partnering program with the owner and promote a peer review for the mechanical system and the building envelope designs.

15.014 Carefully document any recommended changes to the Architect of Record. On standard Owner- Architect-Contractor project delivery methods, the Architect's approval must be obtained. In the event the recommendation is rejected, reiterate the recommendation in writing copy the owner and file it.

15.015 Pre-qualify potential subcontractors and ensure that the subs have adequate experience in the specific application being bid.

15.016 Consult manufacturers of moisture critical products to confirm the product's application and recommend standard details and provide preferred installers.

15.017 Delivery of interior materials (e.g. dry wall, paneling, ceiling tiles, framing lumber):

15.018 Schedule so materials will arrive after exterior of building has been sealed

15.019 Provide for dry storage of materials - off ground away from moisture sources

15.020 Minimize storage time

15.021 Plastic sheeting or tarps used to cover materials are secured loosely to allow air circulation

15.022 If storage time is lengthily, conduct hazard inspection of stored materials at least once a week

15.023 Pre-arrange for drying equipment

15.024 Fans

15.025 Dehumidifiers

15.026 Wet-dry vacuums

15.027 "Super sucker" trucks

15.028 All materials inspected upon delivery for pre-existing mold contamination

15.029 Interior materials installed in dry condition - per manufacturers' specifications

16.0 All water services (including fire sprinklers) and waste lines checked fo

16.01 Proper installation

16.02 Connections properly made and checked for leakage

16.03 Water lines (particularly chilled water) properly insulated

16.04 Have multiple inspectors for filling or hydro test of sprinklers

16.05 All building penetrations properly installed and checked for leakage:

16.06 Doors

16.07 Windows

16.08 Balconies and decks

16.09 Roof membranes -- lapping at corners and joints

16.010 Ventilation/exhaust ducts

16.011 Stairwells & elevator shafts

16.012 All tears, openings or punctures in vapor barriers have been repaired

16.013 All flashings and caulking checked for proper lapping and application

16.014 Use kick-out flashing at rake intersections

16.015 All roof drains drain away from the foundation

16.016 Roof drains properly supported and braced for large volume storms

16.017 All moisture-generating equipment vented outdoors

16.018 Surrounding ground sloped away from foundation

16.019 Proper ventilation to attics, crawl spaces or other enclosed areas

16.020 HVAC system

16.021 Correct filters are properly installed - ASHRAE Dust Spot Efficiency per specifications, no filters missing or misaligned

16.022 Drip pan for cooling coils drains properly

16.023 No insulation on interior of ventilation ducts - bare, galvanized sheet metal preferred

16.024 All duct joints sealed

16.025 The system is cleaned and commissioned. Third party certification of HVAC (test and balance report). The American society of Heating Refrigerating and Air Conditioning Engineers has published a good practice commissioning procedure (ASH RAE Guide #1).

16.026 Documentation of critical installations, including photographs

16.027 Use EIFS installers that follow performance standards, specification, and methods of application guidelines from the EIFS Industry Members Association.

17.0 Post-Construction & interim and inspections

17.01 Have manufacturers inspect installations for warrantee purposes

17.02 Facility owner briefed on their responsibilities to prevent mold growth

17.03 Fix leaky plumbing and leaks in the building envelope as soon as possible

17.04 Watch for condensation and wet spots. Fix source(s) of moisture problems(s) as soon as possible

17.05 Prevent moisture due to condensation by increasing surface temperature or reducing the moisture level in air (humidity). To increase surface temperature, insulate or increase air circulation. To reduce the moisture level in air, repair leaks, increase ventilation (if outside air is cold and dry), or dehumidify (if outdoor air is warm and humid.)

17.06 Keep heating, ventilation and air conditioning (HVAC) drip pans clean, flowing properly and

unobstructed

17.07 Vent moisture-generating appliances, such as dryers, to the outside when possible

17.08 Maintain low indoor humidity, below 60 percent relative humidity, ideally 30 to 50 percent, if possible

17.09 Perform regular building/HVAC inspections and maintenance as scheduled.

17.010 Install and maintain proper air filters

17.011 Clean and dry wet or damp spots within 48-hours

17.012 Don't let foundations stay wet. Provide drainage and slope the ground away from the foundation

17.013 Ensure new building penetrations are properly sealed

17.014 Landscape watering system does not spray building foundation

17.015 Final visual inspection of:

17.016 Pipe chases

17.017 Utility tunnels

17.018 Areas above drop ceilings that are exposed to water or waste lines or that are directly below roof.

Appendix

ON-SITE HEALTH & SAFETY®

INCIDENT RESPONSE SERVICE

1. Call for response to worksite: **866-998-2750 24-hours / 7 days**
2. Technician arrives, takes report from employee, and provides first aid care.
3. Notification - Recommendation - Report
4. Phone call follow-up
5. Drug test, if requested

Notify Foushée Safety
Dick Beith: 425-941-4299
Rob Virtue: 425-681-8967

TYPES OF INCIDENTS:

FIRST AID AND REPORT

- ABRASIONS
- LACERATIONS
- BURNS
- FOREIGN BODY
- EYE IRRITATION
- NECK OR BACK PAIN
- EXTREMITY INJURY
- HEALTH ILLNESS / UNKNOWN ILLNESS

On-Site Health & Safety does NOT PROVIDE MEDICAL services.
Investigation, report, and FIRST AID ONLY!!!

Puget Sound Locations

1. **Bellevue**
   1925 140th Ave NE
   Bellevue, WA 98005
   Mon-Fri: 8 am - 5 pm
   Ph: 425.865.8060
   Fx: 425.562.1273

2. **Everett - Broadway**
   3726 Broadway, Ste 101
   Everett, WA 98201
   Mon-Fri: 7 am - 6pm
   Ph: 425.259.0300
   Fx: 425.259.0301

3. **Everett - Paine Field**
   3101 111th St SW, Unit T/U
   Everett, WA 98204
   Mon-Fri: 7 am - 5 pm
   Ph: 425.267.0299
   Fx: 425.513.1446

4. **Federal Way**
   1300 South 320th St, Ste B
   Federal Way, WA 98003
   Mon-Fri: 8 am - 6 pm
   Sat: 9 am - 4 pm
   Ph: 253.839.2727
   Fx: 253.839.6081

5. **Kent**
   24031 104th Ave SE
   Kent, WA 98030
   Mon-Fri: 8 am - 5 pm
   Ph: 253.852.1824
   Fx: 253.859.5139

6. **Lacey**
   3928 Pacific Ave SE
   Lacey, WA 98503
   Mon-Fri: 8 am - 5 pm
   Ph: 360.455.1350
   Fx: 360.455.5354

7. **Lynnwood**
   4320 196th St SW, Ste D
   Lynnwood, WA 98036
   Mon-Fri: 8 am - 6 pm
   Sat: 9 am - 5 pm
   Ph: 425.774.8758
   Fx: 425.672.8944

8. **Puyallup**
   3850 South Meridian, Ste 10
   Puyallup, WA 98373
   Mon-Fri: 8 am - 7 pm
   Sat-Sun: 9 am - 5 pm
   Ph: 253.840.1840
   Fx: 253.841.9336

9. **Redmond**
   16690 Redmond Way
   Redmond, WA 98052
   Mon-Fri: 8 am - 5 pm
   Ph: 425.882.0100
   Fx: 425.867.5401

10. **Seattle - Denny**
    140 4th Ave N, Ste 150
    Seattle, WA 98109
    Mon-Fri: 7 am - 4 pm
    Ph: 206.682.7418
    Fx: 206.623.0884

11. **Seattle - First Avenue**
    3223 1st Ave S, Ste C
    Seattle, WA 98134
    Mon-Fri: 6 am - 4:30 pm
    Ph: 206.624.3651
    Fx: 206.624.2391

12. **Seattle - Northgate**
    836 NE Northgate Way
    Seattle, WA 98125
    Mon-Fri: 8 am - 5 pm
    Ph: 206.784.0737
    Fx: 206.784.0369

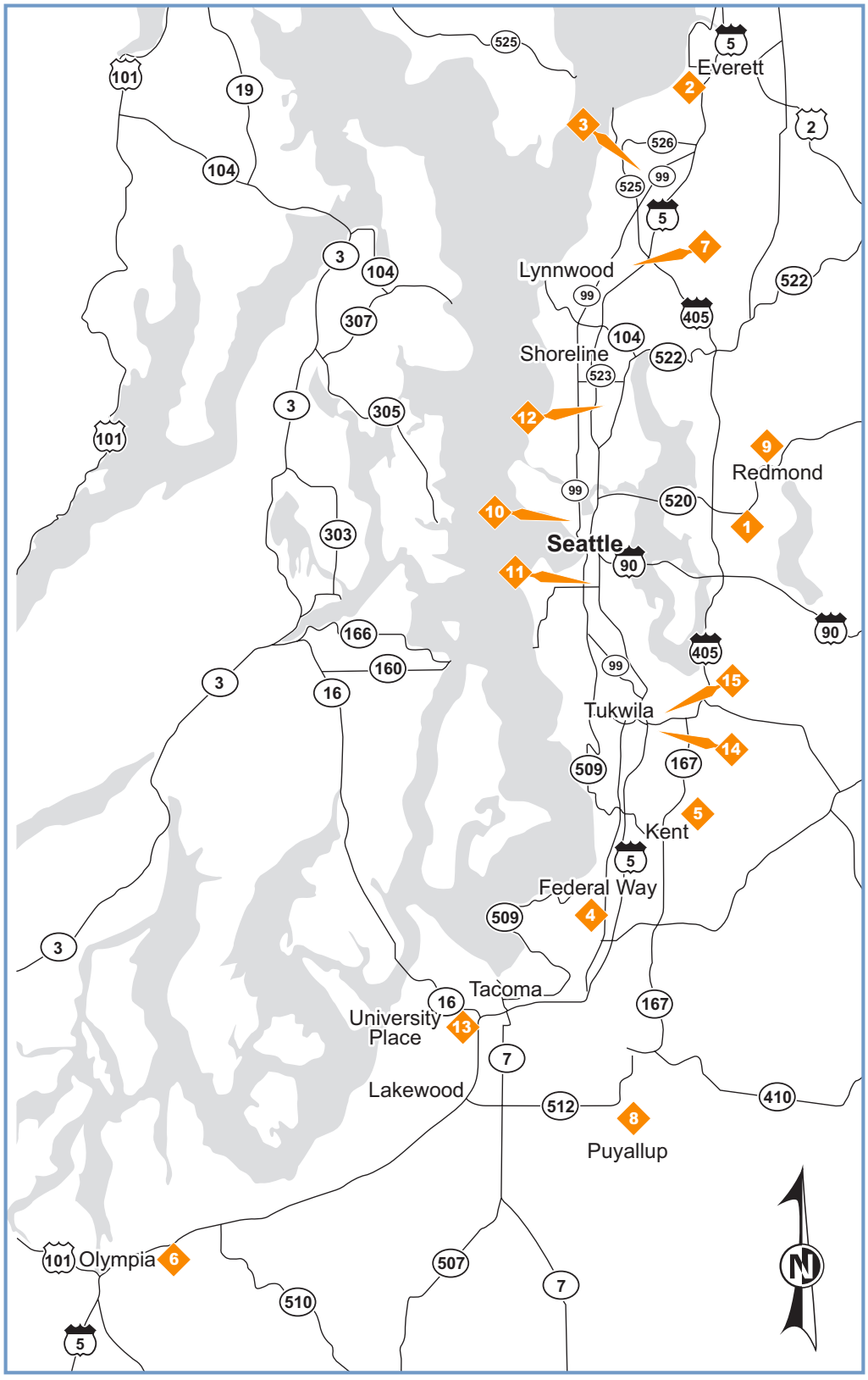
13. **Tacoma**
    2624 South 38th St
    Tacoma, WA 98409
    Mon-Fri: 7 am - 6 pm
    Sat: 9 am - 5 pm
    Ph: 253.475.5908
    Fx: 253.475.5958

14. **Tukwila**
    200 Andover Park E, Ste 8
    Tukwila, WA 98188
    Mon-Fri: 8 am - 6 pm
    Sat: 8 am - 5 pm
    Ph: 206.575.3136
    Fx: 206.575.7657

15. **Tukwila - Fort Dent**
    6720 Fort Dent Way, Ste 110
    Tukwila, WA 98188
    Mon-Fri: 7 am - 4 pm
    Ph: 206.242.3651
    Fx: 206.433.7946

- Work-related injuries receive immediate triage assessment.
- Pre-placement and DOT exam forms are provided, or you may use other DOT approved MER and/or MEC forms.
- No contract is required when working with Concentra. Our fees are competitive and adhere to the applicable state workers' compensation fee guidelines.
- Visit concentra.com/our-locations for a list of locations and driving directions.

Puget Sound Locations



Back to TOC

Local Puget Sound Emergency Rooms

Auburn:

- *Multicare Auburn Medical Center* | 202 N Division St, Auburn WA 98001| Ph: (253) 833-7711

Bellevue:

- *Overlake Medical Center* | 1035 116th Ave NE, Bellevue WA 98004 | Ph: (425) 688-5000

Everett:

- *Providence Regional Medical Center* | 1700 13th Street, Everett, WA 98201 | (425) 261-2000

Kirkland:

- *Evergreen Health Kirkland ER* | 12040 NE 128th St., Kirkland WA 98034 | (425) 899-1700

Redmond:

- *Evergreen Health Redmond ER* | 8980 161st Ave NE., Redmond WA 98052 | (425) 899-1111

Renton:

- *Valley Medical Center* | 400 S. 43rd Street, Renton, WA 98005 | Ph: (425) 228-3450

Seattle:

- *Swedish Emergency Room* | 700 Minor Ave., Seattle WA | (206) 386-6000
- *Harborview* | 325 9th Ave., Seattle WA 98104 | Ph: (206) 744-3074
- *UW Medical Center – NW* | A-Wing, 1550 N 115th St., 1st Fl, Seattle WA 98133 Ph: (206) 668-0500
- *UW Medical Center – Montlake* | 1959 NE Pacific St., 2nd Fl, Seattle WA 98195 | (206) 598-3300

Tacoma:

- Multicare Tacoma General | 315 Martin Luther King Jr Way, Tacoma WA | (253) 403-1000
- *St Joseph Medical Center Emergency* | 1717 S J St., Tacoma WA 98405 | (253) 4256-4101

Back to TOC

Confined Space Entry Permit

Project Name:		Project Number:	
Type of Entry:	☐ Permit Required Confined Space ☐ Alternate Methods Confined Space		
Space ID / Location:			
Purpose of Entry:			
Space Description:			
Entry Supervisor Name & Title:			
Authorized Entrant(s):			
Authorized Permit Duration	Start Date & Time:		End Date & Time:

HAZARD(S) INHERENT TO THE SPACE			HAZARD(S) INTRODUCED TO THE SPACE	
☐ Outside Space	☐ Heat / Cold	☐ Lighting	☐ Paints / Sealants / Caulk	☐ Sanding
☐ Space Access	☐ Fall	☐ Chemical	☐ Cleaning Chemicals	☐ Grinding
☐ Atmosphere	☐ Lighting	☐ Configuration	☐ Solvents	☐ Corrosives
☐ Natural Gas Lines	☐ Biological	☐ Explosion	☐ Welding / Cutting	☐ Heat
☐ Sewer Lines	☐ Entrapment	☐ Electrical	☐ Tools that may Spark	
☐ Water Lines	☐ Engulfment	☐ Fire		
Other:			Other:	

ACCEPTABLE ENTRY CONDITIONS									
1. Affected Departments and/or Personnel Notified?					☐ Yes ☐ No ☐ N/A				
Departments that were notified:									
2. Confined Space Perimeter Setup and Secure?					☐ Yes ☐ No ☐ N/A				
3. Atmospheric Testing?					☐ Yes ☐ No ☐ N/A				
Air Monitoring	**Acceptable Limits**	**Prior to Ventilation**	**After Ventilation**	**Reading / Time**	**Reading / Time**	**Reading / Time**	**Reading / Time**	**Reading / Time**	**Reading / Time**
O2	**19.5-23.5%**								
% LEL	**<10%**								
CO	**<25 PPM**								
H2S	**<10 PPM**								
Other	**<PEL/TLV**								
Tested by:		Meter ID:			Last Calibration Date:				
4. Lockout Tagout of Hazardous Entry Sources					Prior to Entry: ☐ Yes ☐ No ☐ N/A				
5. Space Ventilation	Ventilation Equipment Used:								
Fan ID:		Fan CFM:			Other:				
6. Communication Method ☐ Radio ☐ Voice ☐ Visual ☐ Cell					Other:				
7. Lighting ☐ Yes ☐ No ☑ N/A	Lighting Used:								
8. PPE Required ☐ Hard Hat ☐ Safety Glasses ☐ Work Boots ☐ Gloves					Other:				
9. Other Permits Attached (i.e. LOTO Checklist and Hot Work Permit) ☐ Yes ☐ No ☐ N/A									
10. Rescue **When using 3rd party rescue services, provide additional contact information and rescue plan to this permit.*									
Rescue Equipment ☑ Yes ☐ No ☐ N/A	Used:								

Rescue and Emergency Service Available ☐ Yes ☐ No ☐ N/A	Used:	

EQUIPMENT LIST

☐ Ventilation Fan and Venting	☐ Ladder or other Access Equipment	☐ Extension Cord
☐ Tools for the Job	☐ Tripod with Winch and Lifeline / Harness	☐ Fire Extinguisher
☐ Radio	☐ First Aid Kit	☐ 4-Gas Meter
☐ Barriers		

Other:	

Is there potential for an explosive atmosphere? ☐ Yes ☐ No

Do Tools Need to be Intrinsically Safe? ☐ Yes ☐ No ☐ N/A

CONFINED SPACE ENTRY PERMIT CLOSE-OUT

Permit Cancelled? ☐ N/A ☐ No ☐ Yes	**Date / Time:**	
Space Vacated? ☐ N/A ☐ No ☐ Yes	**Date / Time:**	
Reason:		
By:		

Supervisor's Signature:		**Date:**	
Attendants:		**Date:**	

Entrants:		**Date:**	

Post Entry Evaluation: (comments for improvements / problems encountered, etc.)

Required WAC 296-155 Part L Crane Documents for Mobile Cranes

☐ Crane certification and proof of annual load test by an accredited crane certifier by the department for all crane configurations.
☐ Crane operator certified by a nationally accredited testing organization and documentation of drug testing.
- If the operator is not dispatched until the morning of a lift, copies of the crane operator certification must be presented/copied prior to crane operations.

☐ Copy of crane operator documented crane hours of experience as listed in Table 2 or statement that crane operator documented crane hours are available upon request.
☐ Statement that all maintenance records are available upon request.
☐ Statement that log book and operator's manual must be on crane.
☐ Copy of documented qualified riggers and signal persons.
- If the crane crew is not dispatched until the morning of a lift, a copy of documented training must be presented/copied prior to crane operations.

☐ Documented designation of a qualified and competent Lift Director.
☐ Documented designation of a qualified and competent A/D Director.
☐ Provide a lift plan for the maximum (most critical) lift you will be required to perform.
☐ Provide an assembly/ post assembly documented inspection by the A/D Director.

Required WAC 296-155 Part L Crane Documents for Tower Cranes

☐ Crane certification by a Washington accredited certifier (this includes an inspection prior to assembly, after erection, and after each climbing or reconfiguring the boom, jib, or counter jib).
☐ Proof of annual load test.
☐ 3rd party crane inspection (coordinated by Foushée).
☐ Crane operator certified by a nationally accredited testing organization and documentation of drug testing.
- If the operator is not dispatched until the morning of a lift, copies of the crane operator certification must be presented/copied prior to crane operations.

☐ Copy of crane operator documented crane hours of experience as listed in Table 2.
☐ Statement that all maintenance records are available upon request
☐ Statement that log book and operator's manual must be on crane.
☐ Documented monthly inspections by a competent person
☐ Copy of documented qualified riggers and signal persons.
- If the crane crew is not dispatched until the morning of a lift, a copy of documented training must be presented/copied prior to crane operations

☐ Documented designation of a qualified and competent Lift Director.
☐ Must have a UL Listing for electrical or have a L&I accredited electrical testing laboratory give approval
☐ Verification from an RPE structural engineer that the foundations and support are adequate (coordinated by Foushée).

Back to TOC

Mobile Crane Pre-Lift Checklist

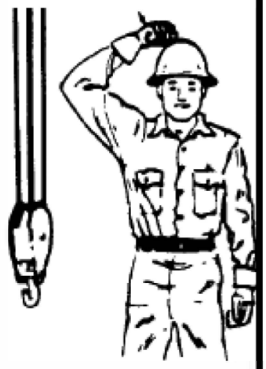
	YES	NO
Is Crane configured in accordance with the Lift Plan?	☐	☐
Has the Crane been inspected and the condition acceptable?	☐	☐
Documentation of crane inspection been presented?	☐	☐
Has the rigging equipment been inspected, secured, and in acceptable condition?	☐	☐
Documentation of the rigging inspection been presented?	☐	☐
Is the support surface for the crane stable/acceptable	☐	☐
Are proper crane mats placed under outrigger floats and at a 90 degree angle to the outrigger cylinders? Are crawler cranes on proper mats?	☐	☐
Are outriggers (if applicable) fully extended with tires off the ground?	☐	☐
Is the crane within 1 degree of level? Has the levelness of the crane been checked with a four foot carpenters level or other acceptable method? The "target" level in the crane cab can be used for initial leveling but should not be considered reliable for critical lifts.	☐	☐
Is the exact load weight known?	☐	☐
Is the location of the center of gravity of the load known and the crane hook positioned directly above it?	☐	☐
Was the load radius measured exactly? For Heavy Lifts, has the potential increasing load radius due to deflections in the boom, tire, and/or carrier been considered?	☐	☐
Was the boom length determined exactly?	☐	☐
Was the boom angle determined exactly?	☐	☐
Are wind conditions acceptable? Determine the allowable windage per the manufacturer's requirements.	☐	☐
Are Ice or Sleet present?	☐	☐
Has lightning been present or forecasted in the area?	☐	☐
Is the rope reeving balanced to prevent boom twist?	☐	☐
Is the rigging capacity acceptable?	☐	☐
Is the weight of the rigging known?	☐	☐
Has the clearance between the boom and the load been considered and is it sufficient?	☐	☐
Has the clearance between the boom tip and block been considered and is it sufficient?	☐	☐
Is the crane operator experienced and qualified?	☐	☐
Has a qualified crane signalperson been assigned and method of communication between the crane operator and signalperson established?	☐	☐
Is a person assigned to control the load with the use of a tag line?	☐	☐
Is the area clear of obstacles, (including power lines, pipelines, and unnecessary personnel)?	☐	☐
Has a pre-lift meeting between the crane operator, signalperson, rigger, site supervisor, lift director and other affected persons been conducted?	☐	☐
Has emergency procedures been determined and communicated to all personnel involved with this operation?	☐	☐
Has a Limited/No Access Zone been established?	☐	☐

Crane Operator:		Date:	
Qualified Signalperson:		Date:	
Site Supervisor:		Date:	
Qualified Rigger:		Date:	
Lift Director:		Date:	
A/D Director:		Date:	

Mobile Crane Hand Signal Chart

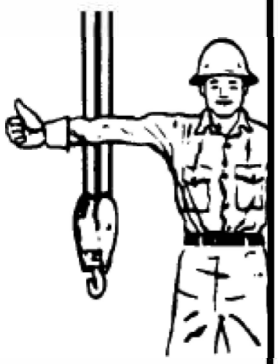
Hoist
With forearm vertical, forefinger pointing up, move hand in small horizontal circles.

Lower
With arm extended downward, forefinger pointing down, move hand in small horizontal circles.

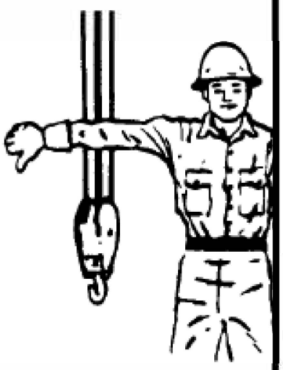


Use Main Hoist
Tap fist on head; then use regular signals

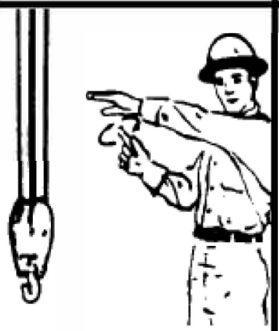
Use Whip Line (Auxiliary Hoist)
Tap elbow with one hand; then use regular signals.



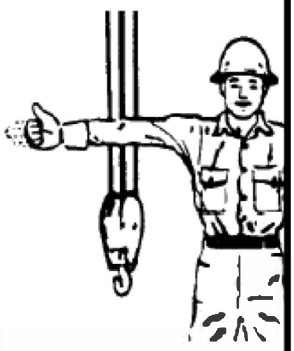
Raise Boom
Arm extended, fingers closed, thumb pointing upward.



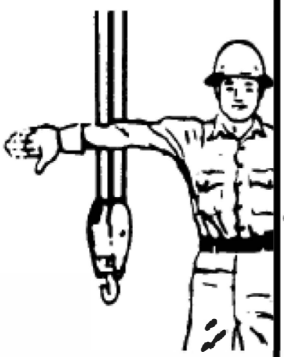
Lower Boom
Arm extended fingers closed, thumb pointing downward.



Move Slowly
Use one hand to give motion signal and place other hand motionless in front of hand giving the motion signal. (Hoist slowly shown as example.)



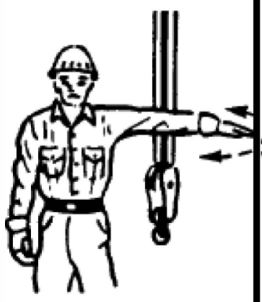
Raise the Boom & Lower the Load
With arm extended, thumb pointing up, flex fingers in and out as long as load movement is desired.



Lower the Boom & Raise the Load
With arm extended, thumb pointing down, flex fingers in and out as long as load movement is desired.

Swing
Arm extended, point with finger in direction of swing of boom.

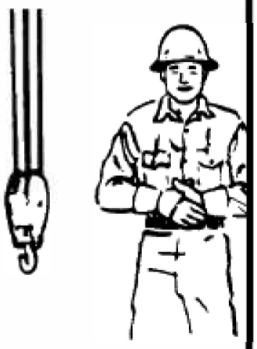
Back to TOC



Stop
Arm extended, palm down, move back and forth horizontally.

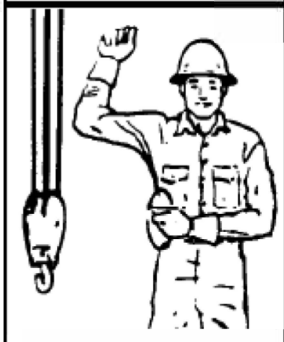
Emergency Stop
Both arms extended, palms down, move arms back and forth horizontally.

Travel
Arm extended forward, hand open and slightly raised, make pushing motion in direction of travel.



Dog Everything
Clasp hands in front of body.

Travel (Both Tracks)
Use both fists in front of body, making a circular motion about each other, indicating direction of travel, forward or backward.



Travel (One Track)
Lock the track on side indicated by raised fist. Travel opposite track in direction of other fist, rotated vertically in front of body.

Extend Boom
Both fists in front of body with thumbs pointing outward.

Retract Boom
Both fists in front of body with thumbs pointing towards each other.

Extend Boom (One Hand Signal)
One fist in front of chest with thumb tapping chest.

Retract Boom (One Hand Signal)
One fist in front of chest, thumb pointing outward and with heal of fist tapping chest.

Back to TOC

RIGGER INSPECTION

(Includes: wire rope, synthetic nylon, chains, shackles, and hooks)

Project Name:		Project Number:	
Company Name:		Calendar Year:	
Qualified Rigger / Lift Director Name:			

Requirements:

1. **The Qualified Rigger must perform a pre-use rigging inspection (per shift) for rigging items listed below.**
2. **Any equipment found to be unsatisfactory must be removed from service immediately and noted.**
3. **Rigger must notify the Lift Director and their Supervisor of any equipment that does not pass the inspection.**
4. **Rigger must submit a copy of the completed checklists to the Superintendent by the end of the week.**

Y = Yes N = No N/A = Not Applicable

	Month/Day	_____	_____	_____	_____	_____	_____	_____
	Equipment Description and/or ID #	**MON**	**TUES**	**WED**	**THURS**	**FRI**	**SAT**	**SUN**
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
Notes:								

Washington State Department of Labor & Industries
Division of Occupational Safety and Health

DOSH Hazard Alert
Helping employers prevent workplace injuries
June 2019

Roles, responsibilities, and procedures during the erection and dismantling of tower cranes

Attention: Tower crane owners, contractors, and their employees who use, erect, and dismantle tower cranes.

When erecting or dismantling tower cranes:

- First, ensure that an assembly/disassembly (A/D) director is declared.
- The A/D Director must be present and directing operations with complete authority over the erection, climbing and/or dismantling project.
- The A/D Director must read and understand the manufacturer's erection/dismantling procedures, and review these procedures with all personnel involved.
- It is important that the manufacturer's written procedures are followed.*
- Review key safety measures with crews before work starts.
- Do not remove the pins, bolts and other connecting parts before an assist crane has been connected to the component to be lifted.
- The A/D Director should stay aware of changing conditions that could increase safety hazards and take necessary precautions.

* **Note:** If the manufacturer's procedures need modification for a particular project you need prior written approval from a person in authority from the manufacturer or a registered professional structural engineer.

Who can be the Assembly/Disassembly Director?

- **Assembly/disassembly (A/D) director:** One who is competent and a qualified person, or a competent person assisted by one or more qualified people.
- **Competent:** One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, **and** who has authorization to take prompt corrective measures to eliminate them.
- **Qualified:** A person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, successfully demonstrated the ability to solve/resolve problems relating to the subject matter, the work, or the project.

Prevent further risk for tower crane collapse by pre-planning!

Effective planning, communication, and procedures, can keep employees safe when erecting and dismantling tower cranes.

Before you begin to erect or dismantle tower cranes:

- Conduct a safety hazard assessment of the affected work area to identify possible hazards and appropriate safety measures.
- Develop a plan for communicating safety measures to all involved in the erecting and dismantling of the crane.
- Provide copies of your safety hazard assessment to the assembly/disassembly director, competent and qualified persons, and onsite supervisors.
- Ensure employees and contractors have appropriate safety training and protective equipment to perform erecting and dismantling activities safely.

Other resources you can access

To find an **electronic** copy of this Hazard Alert, go to **www.Lni.wa.gov/Safety/HazardAlerts**.

L&I Safety web page: **www.Lni.wa.gov/Safety**.

For other related rules, contact your local L&I office or visit the safety rules webpage: **www.Lni.wa.gov/SafetyRules**.

To find the nearest L&I office, visit **www.Lni.wa.gov/Offices**.

How can I get help from Labor & Industries?

The Department of Labor & Industries provides consultations, training, and technical assistance at no cost to employers. Call today to schedule a free confidential consultation or go to **www.Lni.wa.gov/SafetyConsultants** for more information.

You may also call 1-800-423-7233 or visit a local L&I office and ask for the Consultation Manager.

Be aware

Employers who send maintenance and repair personnel to work on a crane at a construction site must ensure they meet the definition for "qualified person" with respect to the maintenance or repair task they perform.

This alert was developed by L&I's Division of Occupational Safety and Health (DOSH) to alert employers, labor groups, and employees to potential hazards associated with work activities. ***This is not a rule and creates no new legal obligations.*** *The information provided includes suggested guidance on how to avoid workplace hazards and describes relevant mandatory safety and health rules. DOSH recommends you also check the related rules for additional requirements.*

FY19-596 [06-2019]

Washington State Department of Labor & Industries

Tower Crane Electrical Safety Requirements

December 2008

State law requires electrical inspections for tower cranes

RCW 19.28.010(3) Electricians and Electrical Installations, WAC 296-46B-901(7) Electrical Safety Standards, Administration, and Installation, regulations, and WAC 296-155-444-(1) Safety Standards for Construction Work require third-party evaluation and labeling of all electrical equipment on all tower cranes operating anywhere in the state. Crane failure due to mechanical or electrical problems can cause loss of life and significant property damage.

The evaluation and labeling requirement for electrical equipment

When the electrical inspection authority finds that a tower crane has not had the third-party evaluation for the site where the crane is installed, it issues a correction notice to the crane installer requiring a field evaluation to be made. Until the crane has the proper evaluation or the electrical inspection authority has granted temporary approval to operate, the crane should not be used.

In L&I jurisdictions, many crane owners and contractors have found that they can get temporary operating approval in as little as 24-48 hours after receiving the initial electrical correction.

Permitting requirements are similar in L&I and city jurisdictions.

Electrical permits must be obtained before the electrical installation begins. The installer doing the electrical work must obtain the electrical permit. L&I permitting applications, fees, and procedures are available on the web at www.Lni.wa.gov/tradeslicensing/electrical/

For information regarding crane installation and permits in cities that administer the electrical code, a complete list of city electrical jurisdictions and their contact information can be found on the L&I website at: http://www.lni.wa.gov/TradesLicensing/Electrical/FeePermInsp/default.asp

Crane certification and electrical inspection

An electrical inspection should not be confused with a crane certification. DOSH will be requiring crane certification for the construction industry beginning January 1, 2010. Electrical inspection by the electrical inspector will be a part of the certification process. DOSH crane certification will not be granted until the crane's electrical inspection is completed.

Electrical inspection for tower cranes as described in this information sheet always has been and is currently required. To get electrical inspection approval the crane must be listed or field evaluated by a laboratory before the electrical inspector can grant inspection approval.

L&I has a process in place to expedite the field evaluation

Using this process gets a crane back into operation as quickly as possible:

- Once a correction is issued, the owner of the crane must contact an L&I approved electrical testing laboratory and make arrangements for the laboratory to field evaluate the crane.
- The laboratory then requests permission from L&I to do the evaluation. The laboratory provides L&I details of the electrical safety standards to be used and the approximate time needed to complete the evaluation.
- After determining that the laboratory's application is appropriate, L&I will grant approval to do the evaluation and issue a field evaluation project number for the evaluation. L&I is the only agency allowed to approve evaluations or electrical testing laboratories in Washington.

L&I will send the evaluation approval to the laboratory, owner and the local electrical inspection office.

Accredited electrical product-testing Laboratories

Some of the local accredited electrical product-testing laboratories are:

- ETI Conformity Services, Auburn, WA
- Intertek Testing Service, Beaverton, OR
- TUV Rheinland of North America, Beaverton OR
- Underwriters Laboratories, Camas, WA

These testing laboratories have indicated that tower crane field evaluations may be site specific. If there is a site specific restriction, an evaluation will be necessary each time the crane is moved.

For a complete list of accredited electrical product-testing laboratories go to: www.Lni.wa.gov/TradesLicensing/Electrical/Install/ProdTest/.

What is next?

If the owner needs to operate the crane during the field evaluation process, the owner must request permission to operate in writing to the electrical inspection jurisdiction. In L&I electrical inspection areas, the owner must reference the field evaluation project number, issued by L&I to the laboratory, in the request to operate. In L&I's jurisdiction, L&I typically grants approval to operate on a temporary basis based upon the time needed for the laboratory to complete the evaluation.

Cities that do electrical inspections have similar policies and procedures. For procedures within City jurisdictions that administer the electrical code, contact the city jurisdiction for more information about City policy and procedures.

DOSH safety policy on tower cranes erected prior to December 15, 2008

Effective immediately, a voluntary compliance effort will be initiated for the lack of third-party electrical evaluation and certification of tower cranes erected prior to December 15, 2008. This voluntary effort will extend through February 14, 2009. However, beginning February 15, 2009, L&I's Division of Occupational Safety and Health (DOSH) will resume normal enforcement when construction tower crane electrical components do not have the required third-party evaluation; DOSH staff will be directed to issue citations with possible monetary penalties.

All tower cranes erected on or after December 15, 2008, are expected to carry the appropriate electrical certification following third-party evaluation before they are put into operation. If electrical components are not properly evaluated and certified, DOSH will issue citations with possible monetary penalties. In all cases where inspections are performed, if DOSH determines that there exists an imminent danger to workers or the public, immediate correction will be required prior to continuing operation.

Need more information?

For electrical questions, please call the Electrical Technical Specialist at (360) 902-5249 or e-mail to ElectricalProgram@Lni.wa.gov.

For crane safety questions, please call the Crane Safety Program at (360) 902-4669 or e-mail to LNICranes@Lni.wa.gov.

Daily Tower Crane Pre-Lift Checklist

Date: _____

Yes	No	
☐	☐	Lift Director: preparation of area supporting crane/hoisting operations; traffic controls in place; ensure assigned riggers/signalers are qualified & understand assoc hazards; ensure power line safety requirements; inform crane operator of weight of loads to be lifted; crane operator verifies weight does not exceed crane's rated capacity
☐	☐	Coordination of scheduled material to be lifted has occurred?
☐	☐	Daily crane inspection has been conducted?
☐	☐	Rigging has been inspected, secured, and is in acceptable condition & documented?
☐	☐	Is ice or sleet present? If yes, no lifts authorized until removed or not present.
☐	☐	**Are wind conditions acceptable for hoisting operations?
☐	☐	Are any Critical Lifts planned today (greater than 75%)? If so, complete critical lift plan.
☐	☐	Have communications been checked between the operator, lift director/qualified rigger, signal person, and Foushée?
☐	☐	Have all power line and other hazards been reviewed and been abated?
☐	☐	Ensure every load is properly rigged and balanced prior to lifting more than a few inches.
☐	☐	Lift path is clear and areas below cordoned off as required?
☐	☐	Other:

Lift Director/Qual Rigger:_____ Operator:_____

Rigger:_____ Qualified Signal Person:_____

Rigger:_____ Site Supervisor:_____

Date: _____

Yes	No	
☐	☐	Lift Director: preparation of area supporting crane/hoisting operations; traffic controls in place; ensure assigned riggers/signalers are qualified & understand assoc hazards; ensure power line safety requirements; inform crane operator of weight of loads to be lifted; crane operator verifies weight does not exceed crane's rated capacity
☐	☐	Coordination of scheduled material to be lifted has occurred?
☐	☐	Daily crane inspection has been conducted?
☐	☐	Rigging has been inspected, secured, and is in acceptable condition & documented?
☐	☐	Is ice or sleet present? If yes, no lifts authorized until removed or not present.
☐	☐	**Are wind conditions acceptable for hoisting operations?
☐	☐	Are any Critical Lifts planned today (greater than 75%)? If so, complete critical lift plan.
☐	☐	Have communications been checked between the operator, lift director/qualified rigger, signal person, and Foushée?
☐	☐	Have all power line and other hazards been reviewed and been abated?
☐	☐	Ensure every load is properly rigged and balanced prior to lifting more than a few inches.
☐	☐	Lift path is clear and areas below cordoned off as required?
☐	☐	Other:

Lift Director/Qual Rigger:_____ Operator:_____

Rigger:_____ Signal Person:_____

Rigger:_____ Site Supervisor:_____

** If wind speeds are expected in excess of 30mph; consult the crane manufacturer's specifications for wind allowances to determine if hoisting operations can be made.

Site Specific Demolition Meeting

Subcontractor:					
Subcontractor Representative(s):		**Signature(s):**			
Foushée Supt:		**Signature:**			
Foushée PM:		**Signature:**			
Foushée Safety:		**Signature:**			
Project Name:		**Date:**			

Foushée Superintendent will discuss all items listed below with Subcontractor's Competent Person. The Subcontractor Supervisor will initial beside each item discussed and note N/A if an item is not applicable. Send a copy to the Foushée PM and Safety Department for review.

#	Initial	Item
1.		All known or suspected utilities must be clearly marked and located. Call Before You Dig to request locates. Call 811 or Go towww.callbeforeyoudig.org.
2.		Utility companies have been notified to shut off, cap or control all electric, gas, water, steam, sewer, and other service lines before demolition is started.
3.		Perform scanning of concrete slab to locate rebar, electrical, communication conduits, and post-tension cables prior to cutting, coring, or drilling process.
4.		If necessary, to maintain power, water or other utilities during demolition, such lines must be temporarily relocated and protected. Coordinate with local utilities.
5.		Prior to starting demolition operations, "*subcontractor"* has provided an engineering survey of the structure conducted by a competent person. Adjacent structures, as appropriate, must also be checked where employees are exposed.
6.		A Hazard Analysis has been completed and submitted for review prior to demolition that includes measures taken for dust/silica, fumes, potential run off, and worker/ public safety.
7.		Demolition activities will be monitored and controlled to ensure safety in accordance with DOSH requirements. Demolition must be conducted under supervision by a competent person.
8.		Determine if asbestos, (Good Faith) hazardous materials, hazardous chemicals, gases, explosives, flammable materials, or similarly dangerous substances are present at the work site. Testing has been provided and removal or purging will occur to eliminate the hazard before demolition is started.
9.		Fall hazards through wall openings require to protect the opening to a height between 36 and 42 inches.
10.		Debris removed from elevations will use trash chutes or the area will be completely enclosed with barricades minimum 42" high and at least 20' back from the projected edge of above opening. Removal below is not allowed until above debris handling has ceased.
11.		All floor openings, not used as material drops, must be covered with material substantial enough to support the weight of any load which may be imposed. Secure and label covers to prevent accidental movement.
12.		Demolition of exterior walls and floors will begin from top proceeding downward.
13.		Personnel on lower levels will not be exposed to above demolition.
14.		Employee entrances to multistory structures must be protected with sidewalk sheds and/or canopies a minimum of 8' from face of building. Construct canopies 2' wider than building entrances (1' wider on each side) capable of sustaining a load of 150 pounds/sq. ft. (Building demolition and employee/public exposure)
15.		Authorized personnel only are allowed within the demolition area.
16.		The jobsite supervisor will walk the job daily with the individual crafts involved in the demolition activities to evaluate and address potential hazards.

Safety Items:

1. Weekly Site Safety Meeting: A weekly site-specific safety meeting will be held to identify hazards.
2. Fire Reporting: Call 911 and notify Foushée Project Superintendent.
3. Fire Extinguishers: The demolition contractor will provide an adequate number of fully charged fire extinguishers, distinctly marked, readily accessible. Annual certifications will be current.
4. Welding: Proper protective clothing will be worn at all times, goggles (ANSI standards) and leather welding gloves (as required). Follow manufacturer's recommendations for setting up and operating equipment.
5. Fire Protection Alarm System: Use extreme care when working around or near fire protection/detection alarms systems. Smoke detectors have been covered?
6. Debris: The accumulation of all debris inside the building will be kept to a minimum during the demolition process; no debris shall be placed in fire lanes, walkways, roadways, and sidewalks.
7. Injury Reporting: Notify the Foushée Project Superintendent immediately. Call 911 in case of emergency.

Nearest Hospital:	

8. Protective Barriers/Warning Signs: Effective barricades and warning signage will be posted to delineate overhead work for the protection of personnel from entering hazardous operations and moving equipment. Barricades will be erected prior to the start of demolition activity.
9. Protective Equipment: At a minimum, gloves, hard hats, high-visible Class 2 Level 2 vests, safety glasses (ANSI Z87.1 with side shields), and safety shoes are required. All protective equipment shall meet DOSH Requirements. A PPE Analysis of the demolition activities will be completed by the competent person and reviewed with the crew performing demolition prior to starting work.
10. Ladders/Scaffolds: Inspect ladders/scaffolds before use for physical defects. Ladders must be equipped with safety (non-skid) feet. Metal ladders will not be used near or for electric service. All ladders will be tied off top and bottom and inspected prior to use. Scaffold designed by qualified person.
11. Hand Tool/Electrical Tools: Inspect tools and use only for the purpose intended. Defective/ damaged tools will be removed from service. All electrical tools will be double-insulated or grounded. Hand and portable power tools and equipment will be guarded.
12. Control of Hazardous Energy (Lockout/Tag Out): Control of hazardous energy (active or stored) when servicing and maintaining equipment or machines. Power will be disconnected, and all energy isolation devices will be locked out and tagged out before starting work. The authorized person will verify the isolation and de-energization. (Lockout/Tag out procedure/form submitted to Foushée Project Superintendent).
13. Electrical Wiring and Equipment: All electrical wiring and equipment will be a type listed by UL or another recognized listing agent. Temporary electrical wiring will be adequately installed and placed to avoid physical damage from other operations. Extension cord sets used with portable electric tools and appliances must be of 3-wire type and must be designed for hard or extra-hard usage. Flexible cords used with temporary and portable lights must be designed for hard or extra-hard usage.

Rev. 11.25.20

Drilling/Coring/Cutting into Concrete OR Post Tension Slab Checklist

Prior to drilling/coring/cutting into concrete slab or PT deck, a pre-drilling meeting must take place with all personnel involved with the procedure. The following items must be discussed and established prior to the work starting.

Subcontractor:	
Project Name & Location:	
Describe Task:	

☐ Workers have been trained on the hazards of drilling/coring/cutting into concrete slab and striking rebar, electrical or communications conduits and post tension cables.

☐ A Job Hazard Analysis has been completed and submitted for review. The JHA addresses hazards with slab penetration and measures for dust and silica control, and containment/ capture of waste debris.

☐ Foushée will notify subcontractor of the maximum hole depth that is allowed in PT deck/slab.

☐ Determine the correct depth to drill holes into the PT deck/slab. Depth is: _____

☐ How will the drill bit be identified for correct depth? _____

X-ray or scanning detection has been used to identify the depth of rebar, electrical or communications conduits and post tension cables: ☐ YES ☐ NO ☐ N/A

Additional Comments for Performing this Work:	

Signatures for the assigned work:

Subcontractor Supervisor Signature	*Print Name*	*Date*
Drill Operator Signature	*Print Name*	*Date*

I have reviewed and understand all the procedures and specific hazards associated with this operation. I understand that if I have any questions I may talk to my Supervisor.

Crew signatures for Drilling/Coring/Cutting Checklist:

Print Name	Signature	Company	Date

I have reviewed and understand all the procedures and specific hazards associated with this operation. I understand that if I have any questions I may talk to my Supervisor.

Back to TOC

Aerial Lifts & Platforms

Daily Prestart Inspection

Before use each day or at the beginning of each shift, the aerial platform requires a visual inspection and functional test including at least the following:

EQUIPMENT TYPE & MODEL NUMBER:						
PROJECT NAME:				**JOB NO.**		
OPERATOR/INSPECTOR'S NAME:						
Visual Daily Checks	**M**	**Tu**	**W**	**Th**	**F**	**Sat/Sun.**
DATE:						
Operating & emergency controls	☐	☐	☐	☐	☐	☐
Safety devices operational	☐	☐	☐	☐	☐	☐
Personal protective devices or equipment	☐	☐	☐	☐	☐	☐
Air, hydraulic and / or fuel system leaks	☐	☐	☐	☐	☐	☐
Cables and / or wiring harnesses	☐	☐	☐	☐	☐	☐
Loose or missing parts	☐	☐	☐	☐	☐	☐
Tires and wheels	☐	☐	☐	☐	☐	☐
Placards, warnings, control markings, and operating manuals	☐	☐	☐	☐	☐	☐
Outriggers, stabilizers, and other structures	☐	☐	☐	☐	☐	☐
Guardrail system	☐	☐	☐	☐	☐	☐
Personal fall protection (mandatory for boom lifts)	☐	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐	☐

Notes:	

Operator/Inspector's Name:	

**Use the other side of this sheet to list any needed repairs.*
**Note date repairs have been made.*

Do not operate this equipment until any and all repairs have been made.

Back to TOC

Rough Terrain Forklift Daily Inspection

Before using a new forklift, compare this list to the operator's manual and add manufacturer specific items not found on this list.

Vehicle Information	Model #:	Serial #:	
Operator's Name:		**Operator's Employer:**	
Equipment Owner:		**Company Leasing Equipment:**	
Owner's Rental #:		**Date of Inspection:**	

STATUS: S = Satisfactory; U = Needs Attention or Repair; R = Recommendation; N/A = Not Applicable

VISUAL CHECKS	Mon	Tue	Wed	Thurs	Fri	Sat	Sun
Machine Structure - dents, damage, weld, or parent metal cracks							
Safety Decals							
Operation & Safety Manual in cab							
Capacity charts visible							
Obvious damage and leaks							
Tire condition							
Head & tail lights / beacon							
slow moving sign / mirrors							
Hour meter							
Other gauges & instruments							
Engine air cleaner							
Fan belt							
Battery condition/ connections							
Boom sections & lift, tilt, extend/retract cylinders							
Outriggers							
Front Axle							
Cab & Electrical							
OPERATIONAL CHECKS	**Mon**	**Tue**	**Wed**	**Thurs**	**Fri**	**Sat**	**Sun**
Service brakes & parking brakes							
Steering							
Forward & reverse travel							
Each gear							
Hydraulic controls / filter condition							
Horn & Back-up alarm							
Inching pedal							
Clutch							
Transmission controls							
All joystick functions							
Seat belts							
Fluid levels							
Fuel							
Hydraulic Oil							
Engine Oil							
Transmission fluid							
Coolant							
ATTACHMENTS							
Verify attach compatible							
Mounting							
Hook							
Swedge							
Wire rope							
Capacity labeled							
Hydraulic fittings							
Load chart in cab							
Directions / manual in cab							
Hour meter (if applicable)							
Winch – 1st drum wraps painted hi-vis							
HOURS OF SERVICE: START OF SHIFT							
HOURS OF SERVICE: END OF SHIFT							
TOTAL HOURS FOR WEEK							

Back to TOC

Fall Protection Work Plan

WAC 296-880: You must develop and implement a written fall protection work plan including each area of the work place where the employees are assigned and where fall hazards of 10 feet or more exist and be available on the job site for inspection by the department.

Company Name	Project	Date
Site Address	Superintendent	

(if additional space is needed, use the back of the sheet)

Identify all fall hazards 10 feet or more above the ground level or lower level. Check all that apply.

- ☐ Open-sided floors
- ☐ Decks/Balconies
- ☐ Floor openings
- ☐ Skylight openings
- ☐ Wall openings
- ☐ Window openings
- ☐ Door openings
- ☐ Roof openings
- ☐ Leading edge work
- ☐ Mobile lift work

Methods of fall protection to be used: (LSO = Low Slopes Only. Low Slopes = 4 x 12 or less)

- ☐ Guardrail system (LSO)
- ☐ Warning line System (LSO)
- ☐ Catch platform
- ☐ Safety net
- ☐ Covers
- ☐ Personal fall arrest system
- ☐ Personal fall restraint system
- ☐ Positioning device system
- ☐ Horizontal life lines
- ☐ Vertical life lines & rope grab
- ☐ Safety watch system (LSO)
- ☐ Warning line w/ safety monitor (LSO)

Name of safety watch or monitor (if used): _____

Overhead Hazard Protection Methods

- ☐ Hard Hats
- ☐ Overhead Hazard Signs
- ☐ Debris Nets
- ☐ Toe boards on Guardrails
- ☐ Screens on Guardrails
- ☐ Barricade to control Access to Area
- Other:
- Other:

Describe procedures for assembly, maintenance, inspection, disassembly of fall protection system to be used.

Fall protection will be installed and secured after every shift. A competent person will oversee and ensure manufacturer's recommendations and instructions for proper use and inspection, maintenance is followed, and identify potential hazards. Equipment will be inspected prior to each use, defective equipment will be taken out of service, and supervisor will be notified.

Describe procedures for handling, storage, and securing tools, equipment, and materials.

Tools will not be left on ladders or platforms. Equipment and material will be handled and stored in accordance with manufacturer guidelines and managed by competent person. Equipment is inventoried and inspected before use and equipment will be stored in a dry, secured location.

Describe methods of overhead protection for workers who may be in or pass through work area.

Hard hats worn at all times. Post warning signs as appropriate. Install barricade zone as appropriate. Equipment, material, tools should not be stored near the edge of an open deck, and if stored above toe board height, paneling or screening will be erected.

Describe methods to be implemented for prompt, safe removal of injured worker(s).

911 will be called immediately. One responder will stay with worker, while one person goes to the main entrance to wait for the fire department and escort them to the worker. Use a portable extension ladder, or aerial lift to support safe removal if possible. First aid shall be performed as situation allows.

Back to TOC

Employees who received fall protection training on the above site- specific fall protection work plan.

Name(s):	Date:

The competent person's signature verifies that the fall protection work plan has been done, the employees informed of the plan and that employees have received training in the fall protection systems in use:

Name:	Title	Date

Addendum to the Accident Prevention Program
Outdoor Heat Exposure
(May – September*)

Purpose: To help prevent heat-related illnesses and injuries.

Which workers does this program cover?

Anyone working outdoors more than 15 minutes in any 60-minute period in temperatures:

- As low as 52°F when wearing clothing that is non-breathable or provides a vapor barrier like rain gear, chemical resistant suits, or Level A suits.
- Starting at 77°F when wearing double layer woven clothing like sweatshirts, coveralls, and jackets on top of other clothes.
- At 89°F when wearing any other type of clothing like typical shirts and pants.

Some individuals are more susceptible to heat stress than others. For example, individuals who aren't acclimatized or who come to work dehydrated.

Workers doing the following jobs or tasks at our worksites are considered to meet the descriptions above:

> Job: craft workers performing work that meets or exceeds the outdoor temperatures and activities identified above (52°F, 77°F, 89°F) includes laborers, carpenters, forklift operators, form work, pouring/finishing decks, and miscellaneous activity.

Prevention measures to follow:

Workers and supervisors share responsibility for safety at the jobsite. This includes watching out for yourself and others because heat illness can become a life-threatening condition quickly if unnoticed or ignored. Speak up if you notice anything that could be unsafe or result in someone getting hurt or sick.

Start the day safe, do the work safe and go home safe.

1. Setting up the worksite for shade

1.) Crew trailers are available as break areas on each new construction jobsite. 2.) The supervisor will identify break areas for shade on jobsites to include temporary structures, walls, trees or set up a portable canopy if needed. 3.) Tenant Improvement remodeling projects in occupied buildings have conditioned spaces.

*This hazard can occur at other times during the year. If so, we will apply all necessary safety measures to prevent heat-related illnesses and injuries.

4.) Supervisors will identify and evaluate heat prevention in non-conditioned tenant improvement projects. Non-conditioned areas will be provided fans, open windows (if possible) and vents.

2. Work scheduling to reduce heat exposure

The supervisor will take necessary precautions to reduce heat exposure and schedule accordingly, especially during a heat wave. Additional breaks for rest and water, and timing changes may be options

3. Hydration

Don't wait to be thirsty to drink water, and don't drink it all at once. In fact, it's best to start drinking water before work. Drink small amounts often throughout the day to stay hydrated. Additional water breaks are allowed during hot days.

Drink at least 1 cup every 15-20 minutes

- Sport drinks low in sugar are okay.
- Avoid drinks with caffeine and high sugar content like sodas because they won't hydrate you.

- Enough water will be provided to allow each employee to drink at least a quart of water each hour.

(Additional water jugs for water coolers and bottled water will be provided by the water vendor on hotter days and as needed. Adequate supplies of water will be available for each employee.

The supervisor is responsible for setting up supplies, checking water levels and replenishes the supplies. Jobsite hose bibs will be identified as potable water for drinking if available. Shared cups/bottles are not allowed, not dipping cups in water, and not drinking from non-potable water sources like lakes or from hoses not labeled as safe for drinking.

4. Adjusting to heat (acclimatization)

It takes about two weeks to fully adjust to hot working conditions. This adjustment is lost if you are away from the hot conditions for a week or more. Acclimatization is especially critical for heavy work in hot temperatures.

Employees will be reminded on days of high heat to not overdue, maintain a buddy system, take shade/water breaks as needed and notify their supervisor immediately if they are not feeling well or experiencing any heat related symptoms.

*****This hazard can occur at other times during the year. If so, we will apply all necessary safety measures to prevent heat-related illnesses and injuries.

5. Training

Each year before May, employees working on the jobs listed above will be provided with safety training on the dangers of outdoor heat exposure, the steps we take to protect them, and actions they must follow to prevent heat-related illness.

Additional training will be provided by the supervisor when a new employee is hired during May – September.

Employees need to be aware of:

- How heat can make them sick, and how to recognize the common signs and symptoms of heat-related illness in themselves and coworkers. Four most common conditions are heat rash, heat cramps, heat exhaustion and heat stroke.

- The environmental factors that increase risk for heat-related illness such as higher temperatures, humidity, sunlight (working under direct sunlight makes it feel about 15 degrees hotter), additional sources of heat like powered equipment and asphalt, no wind, level of physical activity, and wearing of personal protective equipment (PPE) or layers of clothing.

- Personal factors that may increase susceptibility to heat-related illness including age, not being acclimatized, having medical conditions such as hormonal and heart issues and diabetes, dehydration, and use of substances that can affect the body's response to heat like drugs, alcohol, caffeine, nicotine, and medications.

- The importance of removing heat-retaining PPE such as non-breathable chemical resistant clothing during all breaks to allow their body to cool down.

- How to stay well hydrated by drinking small quantities of water or other acceptable beverages frequently throughout the day.

- The importance of acclimatization (to get used to the conditions). It takes about 5 days to start and two weeks to be fully acclimated.

- How to immediately report signs or symptoms of heat-related illness they experience or observe in coworkers, and how to **immediately** respond to prevent the situation from becoming a medical emergency. How to identify and what to do during a heat-related medical emergency (e.g., potential heat stroke).

Supervisors need to know the following (in addition to what is detailed for employees above):

- The procedures to follow to implement the heat-related illness prevention plan including the acclimatization schedule, how to keep track of environmental

*****This hazard can occur at other times during the year. If so, we will apply all necessary safety measures to prevent heat-related illnesses and injuries.

conditions throughout the day, when to increase the number of breaks or stop work early, to check that workers are accessing shade and water (especially for mobile operations), encourage them to stay hydrated, and communicate with lone workers to ensure they are safe.

- When to provide personal protective equipment like cooling vests and gel-filled bandanas.

- What the Supervisor needs to do if an employee shows signs and symptoms of possible heat-related illness including appropriate emergency response procedures including how to transport any affected employees to a medical service provider.

6. **Responding to reports or observations of heat-related illness.**

Let a supervisor or someone nearby know if you or a co-worker is experiencing any signs or symptoms of heat-related illness and take immediate action to ensure things don't get dangerously worse.

1. Time is critical. Get the worker away from the hot area into a cool shaded area. Quick action increases the chances for a full recovery.

2. Let the worker rest and drink cool water. (As appropriate, help remove PPE and extra clothing, apply cold towel or ice pack).

3. Never leave an employee who is experiencing heat-related problems alone, things could get worse.

4. If the employee does not respond quickly, call emergency medical services. Responder and medical services are posted on the Safety Board.

5. If the employee receives medical attention get a written authorization from the provider that the worker can get back to work and if there is any restriction or limitations.

*This hazard can occur at other times during the year. If so, we will apply all necessary safety measures to prevent heat-related illnesses and injuries.

Back to TOC

PREVENTING HEAT-RELATED ILLNESS

- Drink a lot of water, about 1 cup every 15 minutes.
- Know the signs/symptoms of heat-related illness; monitor yourself and co-workers.
- Block out direct sun or other heat sources.
- Use cooling fans/air-conditioning; rest regularly.
- Wear lightweight, light colored, loose-fitting clothes.
- Avoid alcohol, caffeinated drinks, or heavy meals.

Washington State Department of
Labor & Industries
Division of Occupational Safety and Health

www.Lni.wa.gov/Safety 1-800-423-7233

HEAT STROKE – A Medical Emergency

What happens to the body:

Dry, pale skin, sweating may still be present; hot, red skin (looks like a sunburn); mood changes; irritability, confusion, and not making any sense; seizures or fits, and collapse (will not respond).

What should be done:

- Call for emergency help (ambulance or 911.)
- Move the person to a cool, shaded area. Don't leave the person alone. Lay him on his back and if the person is having seizures, remove objects close to him so he won't hit them. If the person is sick to his stomach, lay him on his side.
- Remove heavy and outer clothing.
- Have the person drink small amounts of cool water if he is alert enough to drink anything and not feeling sick to his stomach.
- Try to cool the person by fanning him or her. Cool the skin with a cool spray mist of water, wet cloth, or wet sheet.
- If ice is available, place ice packs in armpits and groin area.

HEAT EXHAUSTION

What happens to the body:

Headaches, dizziness, or light-headedness, weakness, mood changes, irritability or confusion, feeling sick to your stomach, vomiting, fainting, decreased and dark-colored urine, and pale, clammy skin.

What should be done:

- Move the person to a cool, shaded area. Don't leave the person alone. If the person is dizzy or light-headed, lay him on his back and raise his legs about 6-8 inches. If the person is sick to his stomach, lay him on his side.
- Loosen and remove heavy clothing.
- Have the person drink some cool water (a small cup every 15 minutes) if he is not feeling sick to his stomach.
- Try to cool the person by fanning him. Cool the skin with a cool spray mist of water or wet cloth.
- If the person does not feel better in a few minutes call for emergency help (ambulance or 911.)

If heat exhaustion is not treated, the illness may advance to heat stroke.

PUBLICATION F417-218-909 [02-2019]

PREVENGA LAS ENFERMEDADES RELACIONADAS CON EL CALOR

- Beba mucha agua, al menos 1 taza cada 15 minutos.
- Conozca los síntomas de las enfermedades relacionadas con el calor; obsérvese usted y a sus colegas.
- Protéjase del sol directo u otras fuentes de calor.
- Utilice ventiladores (abanicos) o aire acondicionado; tome descansos frecuentes.
- Vístase con ropa ligera, de colores claros y no ajustada.
- Evite el alcohol, bebidas con cafeína o comidas pesadas.

Washington State Department of
Labor & Industries
Division of Occupational Safety and Health

www.Lni.wa.gov/Seguridad 1-800-423-7233

LA INSOLACION – Una Emergencia Médica

Que le sucede al cuerpo:

Piel pálida y seca, puede haber sudor, piel caliente y ruborosa (parece quemada por el sol), cambios de humor, irritabilidad, confusión y no tiene sentido, convulsiones o ataques, y colapsos (la persona no responde.)

Que se debe hacer:

- Llame por ayuda inmediatamente (ambulancia o al 911.)
- Mueva la persona a un lugar fresco y con sombra. No deje a la persona sola. Acuéstela boca arriba y si la persona está teniendo convulsiones, remueva cualquier objeto cercano para que no los golpee. Si la persona tiene malestar estomacal acuéstela de lado.
- Remueva cualquier ropa pesada y de exterior.
- Haga que la persona beba pequeñas cantidades de agua fresca si la persona está lo suficientemente alerta como para tomar algo y no tiene malestar estomacal.
- Abanique a la persona para refrescarle. Refrésquele la piel con un rocío de agua fresca, un paño o una sábana mojada.
- Si hay hielo disponible, coloque bolsas con hielo debajo de las axilas y en la ingle.

Back to TOC

AGOTAMIENTO POR EL CALOR

Que le sucede al cuerpo:

Dolor de cabeza, mareos, debilidad, cambios de humor, irritabilidad, o confusión, malestar estomacal, vómito, desmayo, reducción y oscurecimiento de la orina, y piel pálida y húmeda.

Que se debe hacer:

- Mueva la persona a un lugar fresco y con sombra. No deje a la persona sola. Si la persona está mareada, acuéstela boca arriba y levántele las piernas aproximadamente 6-8 pulgadas. Si la persona tiene malestar estomacal, acuéstela de lado.
- Afloje y remueva ropa pesada.
- Haga que la persona tome un poco de agua fresca (un vaso pequeño cada 15 minutos) si no tiene malestar estomacal.
- Abanique a la persona para refrescarle. Refrésquele la piel con un rocío de agua fresca o un paño mojado.
- Si la persona no se siente mejor en unos minutos, llame por ayuda inmediatamente (ambulancia o al 911.)

(Si el agotamiento por calor no es tratado, esta condición puede avanzar a una insolación.)

PUBLICACIÓN F417-218-909 [02-2019]

FOUSHÉE
Founded in 1977

EQUIPMENT
WAIVER OF INDEMNITY and HOLD HARMLESS AGREEMENT

_____("User")
(Name of Company)

Make/Model/Type (Equipment):_____

User, in consideration of Foushée allowing the user reasonable access to use this equipment hereby releases Foushée and Associates Company, Inc. from all liability for damages for bodily injury and/or property damage that results from the user's use and access of said equipment for the purpose of building construction and its related activities that occur at:

_____ Foushée Job No._____
(Name of project)

Address:_____

User, in consideration of Foushée allowing the user to have access to operate and use the equipment, agrees to defend, indemnify, and hold Foushée harmless from any and all claims, responsibility or liability, and cost, including but not limited to personnel cost, attorney's fees, court cost, expert witness cost and all other related expenses reasonably incurred by Foushée for any losses, fines, penalties, property damage, personal injury, and/or death, or any and all other cost and damages of any kind arising out of or related to the User's access or use of the equipment, including but not limited to, claims alleging (a) defects or inadequacies of any equipment and/or components, (b) negligent or deficient maintenance of the equipment, (c) improper use, (d) improper or inadequate supervision, or (e) failure to comply with local, state or federal laws or regulations.

User agrees, before anyone on their behalf is permitted access to the equipment, to ensure that all employees are properly trained as required by local, state or federal laws or regulations. The *Training* shall be by a qualified person, in the safe and legal use of the equipment as defined in 29 CFR 1910, 29 CFR 1926, WAC 296, ANSI or ASME regulations. User shall assign a *Competent Person* as required in 29 CFR 1910, 29 CFR 1926, WAC 296, ANSI or ASME regulations to inspect the equipment prior to its use and supervise its use.

By signing this agreement, the undersigned hereby acknowledges all of the above conditions and that they have the authority to sign this document.

By: _____

Printed Name & Title: _____

Address: _____

_____

FOUSHÉE
Founded in 1977

SCAFFOLDS
WAIVER OF INDEMNITY and HOLD HARMLESS AGREEMENT

_____("User")
(Name of Company)

User, in consideration of Foushée allowing the user reasonable access to use this equipment hereby releases Foushée and Associates Company, Inc. from all liability for damages for bodily injury and/or property damage that results from the user's use and access of said equipment for the purpose of building construction and its related activities that occur at:

_____ Foushée Job No._____
(Name of project)

Address:_____

User, in consideration of Foushée allowing the user to have access to operate and use the equipment, agrees to defend, indemnify, and hold Foushée harmless from any and all claims, responsibility or liability, and cost, including but not limited to personnel cost, attorney's fees, court cost, expert witness cost and all other related expenses reasonably incurred by Foushée for any losses, fines, penalties, property damage, personal injury, and/or death, or any and all other cost and damages of any kind arising out of or related to the User's access or use of the equipment, including but not limited to, claims alleging (a) defects or inadequacies of any equipment and/or components, (b) negligent or deficient maintenance of the equipment, (c) improper use, (d) improper or inadequate supervision, or (e) failure to comply with local, state or federal laws or regulations.

User agrees, before anyone on their behalf is permitted access to the scaffolds to ensure that all employees are properly trained as required in WAC 296-874-20072, ANSI/ASSE requirements. "Training" by a qualified person, in the safe and legal use of the scaffolds as defined in WAC 296-874. User shall have implemented a written fall protection safety plan, performed a site-specific hazard analysis and assign a "Competent Person" as required in WAC 296-874-20034 to inspect the scaffolds before each work shift, and supervise its use. Scaffold inspections shall be made available and provided to Foushée upon request.

By signing this agreement, the undersigned hereby acknowledges all of the above conditions and that they have the authority to sign this document.

By: _____

Printed Name & Title: _____

Address: _____

_____

EXHIBIT __
OWNER SEPARATE CONTRACTOR
WORK SITE SAFETY ACKNOWLEDGEMENT
Job Name
Job No. 00-000-00

Foushée and Associates Company, Inc. ("Foushée") and its subcontractors shall be responsible for safety as specified in the Contract Documents, and shall take all reasonably necessary safety precautions pertaining to their work performance including compliance with applicable laws, ordinances, regulations and orders issued by a public authority, whether federal, state, local, OSHA/DOSH or other, and any reasonable safety measures requested by the Owner.

To assure the safety of Foushée, its representatives, employees, agents and its subcontractors, Owner Name (the “Owner"), will require that their Separate Contractors and their Subcontractors, Sub-Subcontractors and Suppliers (collectively referred herein as “Separate Contractors”) comply with all Foushée, Federal, State, and Local applicable rules and regulations regarding work site safety. In the event Foushée and/or its subcontractors determines that the Owner's Separate Contractors have failed to comply with applicable safety laws, ordinances and regulations regarding work site safety, Foushée shall notify the Owner, and Owner’s Separate Contractors of such job safety violations, either actual or perceived. Foushée shall direct the non-compliant Separate Contractors to immediately rectify the safety violation.

Foushée shall have the right to exclude Owner’s Separate Contractors from the site immediately for imminent and willful violations. Foushée shall have the right to exclude Owner’s Separate Contractors from the site, if within three (3) days from the day on which Foushée notified the Owners Separate Contractors of the safety violation, the Owner's Separate Contractors have failed to comply with all applicable safety laws, ordinances, regulations, and orders. If a failure of a Separate Contractor to comply with all applicable safety laws, ordinances, regulations, and orders endangers or disrupts Foushée’s work, it is entitled to suspend its work without penalty and without prejudice to its right to compensation. This right to suspend work shall in no way penalize Foushée or its subcontractors and shall remain in effect until the safety violation identified is rectified.

Foushée has supervisory control or authority over its own representatives, employees and agents and is without duty, liability or responsibility for any safety violations of other Separate Contractors. Foushée will require the Owner’s Separate Contractors accessing the site to comply with all applicable rules and regulations regarding work site safety, including but not limited to Foushée’s site rules. Foushée acts or failures to act under this clause shall in no way be construed as an assumption of liability regarding Owner’s Separate Contractors duties and responsibilities regarding job site safety.

The Owner’s Separate Contractors shall comply with any and all insurance requirements set by Owner for the Project and shall name “Foushée and Associates Company, Inc.” as Additional Insureds, on a primary and non-contributory basis, on all possible insurance policies required for the Project.

The Owner’s Separate Contractors agree to defend, indemnify, and hold harmless Foushée and its respective officers, partners, agents and employees (including its subcontractors) from and against all causes of action, penalties, assessments, fines, actions by governmental authorities, demands, liabilities, claims, damages, costs, losses and expenses, including but not limited to

attorney's fees and costs ("Claims") that relate to or occur at the Property, for bodily injury, death, damage to tangible property, or violation of Laws, to the extent and in proportion to the degree the Claims are caused by Owner's Separate Contractors active or passive negligence, violation of Laws, or willful misconduct, including violation of safety or environmental laws or regulations. Owner's Separate Contractors defense obligations shall apply upon the presentation of any Claims. The obligations of this Paragraph shall apply, without limitation, to Claims asserted or prosecuted by an employee of the indemnifying Party; and are in no way limited or relieved by either Party having obtained insurance, by the other provisions of this Agreement, and/or to the extent permitted by law, by the provisions of any workers compensation law, regulation or arrangement; and shall survive the expiration or termination of this Agreement, as well as each Party's completion of its work and/or performance of its obligations to Owner, and or the termination by Owner of any contract with either Party.

While the Owner's Separate Contractors are accessing **Project Name**, the following specific safety requirements are as follows, but not limited to:

1. Hi-Visibility Class II Vest, Jacket, or Shirt must be worn while in common areas.
2. ANSI approved Hardhats and Safety Glasses must be worn while in common areas.
3. No firearms allowed on site at any time.
4. No alcohol, tobacco products or drugs allowed on site at any time.
5. No radios, IPods, or MP3 players allowed in any common areas.
6. Appropriate clothing and footwear must be worn while in common areas. No tennis shoes, shorts, tank tops allowed. 4" sleeves required on shirts.
7. Immediately report any and all injuries to Foushée Superintendent/Foreman.
8. Follow all Federal, State, and Local Environmental, Health and Safety Standards.
9. All delivery personnel must follow above site safety rules, including all PPE.
10. Foushée has the right to remove any person that is not following the above site safety rules.

Other Specific Project Agreements:

A. All workers must undergo a site-specific safety orientation by Foushée.
B. All workers must coordinate with Foushée to ensure the site is locked and secure at the end of each workday.
C. Any trash/rubbish, storage or removal is the sole responsibility of this Contractor. At no time, may trash/rubbish be dumped into dumpster supplied by Foushée.
D. Provide Foushée with key personnel contact information, including office number, mobile number, fax number, and email address.
E. Do not manipulate or change any exterior wall assembly without prior approval from the Owner.
F. A walk-thru will be conducted at the time this Contractor occupies **Project Name** with the Owner/Owners Rep, and/or Foushée and the Contractor.
G. Parking is limited to offsite parking.
H. This Contractor agrees to pre-schedule with Foushée any deliveries that may block access to project site.
I. Any and all visitors that are not a direct employee, subcontractor, sub-tier, or supplier of this Contractor must sign a visitor waiver, have an authorized escort, and wear all required PPE.

Acknowledged and Agreed:

Owner's Contractor, Subcontractor or Sub-Subcontractor Signature	Date
Print Name	
Company Name	

Assumption of Risk, Waiver, Release of Liability and Hold Harmless

Project Name

By acknowledgement and signature, I have requested a hard hat tour of the Project Name Project located at Address, City, State, Zip with Owner, Owner Name, and General Contractor, Foushée and Associates Company, Inc. (Foushée).

I ("Visitor") understand that the Project Name project is still under construction and there are inherent risks and hazards associated with entry into any area under construction, including the Project. In consideration of Owner Name and Foushée allowing Visitor to enter the Project, Visitor, for itself and all others claiming by, under and through Visitor, assumes all risk of entering the Project.

Also in consideration of Owner Name and Foushée allowing Visitor to enter the Project, **Visitor hereby forever releases and waives any claims, demands or causes of action against Owner Name, Foushée, their agents, subcontractors, suppliers, officers, employees, and consultants for all damages of any kind whatsoever, specifically including, but not limited to bodily injury and property damages, however caused and arising or in any way related to Visitor's entry onto, or presence on, the Project**.

Visitor further agrees to defend, indemnify and hold harmless Owner Name, Foushée, its agents, subcontractors, suppliers, officers, employees, and consultants from any and all claims, demands or causes of action arising out of or in any way related to the Visitor's entry onto, or presence on, the Project.

Visitor is required to wear proper footwear (no open toed shoes or "tennis" shoes). A hard hat, safety vest and safety glasses are also required to be worn on the site. No one is allowed to tour the Project if not accompanied by a Owner Name or Foushée representative. Please be aware that the tour may require walking up multiple flights of stairs if the elevators are not yet operational.

I have read, fully understand, and expressly agree to the terms of this Assumption of Risk, Waiver, Release of Liability and Hold Harmless.

SIGNATURES APPEAR ON THE FOLLOWING PAGE

Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	

Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	

Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	
Visitor Signature	Print name
Date _____	

Back to TOC

HOT WORK PERMIT

This Hot Work Permit is required for any operation involving open flames or producing heat and/or sparks and must be completed by the Superintendent and posted in the Field Office prior to commencing Hot Work. Hot Work includes, but is not limited to: Cutting, Grinding, Brazing, Torch Cutting, Soldering, Welding, and Hot Kettles.

DATE:		**VALID UNTIL:**	
BUILDING NAME, UNIT/ROOM, LOCATION:			
DESCRIPTION OF HOT WORK:			
NAME OF HOT WORK CONTRACTOR & OPERATOR:			
IS FIRE WATCH REQUIRED:	☐ YES ☐ NO	**NAME OF FIRE WATCH:**	
FIRE WATCH START TIME:		**FIRE WATCH END TIME:**	
NAME OF HOT WORK SUPERVISOR:		**CONTACT #:**	

A FIRE WATCH SHOULD BE POSTED IF:

- WOOD FRAME CONSTRUCTED BUILDINGS
- COMBUSTIBLE MATERIALS ARE WITHIN A 35-FOOT RADIUS OF HOT WORK THAT CANNOT BE PROTECTED OR REMOVED
- WALL OR FLOOR OPENINGS WITHIN A 35-FOOT RADIUS OF HOT WORK EXPOSE COMBUSTIBLE MATERIALS IN ADJACENT AREAS, INCLUDING CONCEALED SPACES
- COMBUSTIBLE MATERIALS ARE ADJACENT TO THE OPPOSITE SIDE OF PARTITIONS, WALLS, CEILINGS OR ROOFS
- AS DEEMED NECESSARY BY THE PROJECT SUPERINTENDENT

REQUIRED PRECAUTIONS CHECKLIST

☐ Available sprinklers, hose streams, and extinguishers are in service/operable condition.

☐ Hot Work equipment in good repair.

Requirements within 35 ft of Work

☐ Flammable liquids, dust, lint, and oil deposits removed.

☐ Explosive atmosphere in area eliminated.

☐ Floors swept clean of combustibles.

☐ Combustible floors wet down, covered with fire-resistant sheets or damp sand.

☐ Remove other combustibles where possible. Otherwise protect with fire-resistant tarpaulins, screens or shields.

☐ All wall and floor openings covered. Fire-resistant tarpaulins suspended beneath elevated Hot Work.

Work on Walls or Ceilings/Enclosed Equipment

☐ Construction is noncombustible and without combustible covering or insulation.

☐ Combustibles on other side of walls moved away.

☐ No danger exists by conduction of heat into another room or area.

☐ Enclosed equipment cleaned of all combustibles.

☐ Containers purged of flammable liquids and vapors.

Fire Watch/Hot Work Area Monitoring

☐ Fire watch will be provided during and continuously for a minimum of 60 minutes after work, including work breaks **(180 minutes for wood frame buildings, and torch down roofing work). Client fire watch requirements will supersede the above.**

☐ An operable fire extinguisher located within 10 ft of Hot Work. **(A minimum 3-A:40-B:C rating for SEATTLE TEMPORARY-LAND BASED HOT WORK PERMIT CONDITIONS.)**

☐ Fire watch is trained in use of this equipment and in sounding alarm.

☐ Fire watch may be required for adjoining areas, above and below.

☐ Hot Work area inspected 60/180 (wood frame buildings/roofing activity) minutes after job is completed.

Other Precautions Taken

☐ Confined space entry permit required. Area is protected with smoke or heat detection.

☐ Ample ventilation to remove smoke/vapor from work area.

☐ Lockout/tagout required.

☐ Comments:

*Compressed gas cylinder valve protection caps are in place and secured.
*Compressed gas cylinders are removed from building at end of shift.

AUTHORIZATION: THE INFORMATION ON THIS PERMIT HAS BEEN EVALUATED, THE SITE HAS BEEN EXAMINED AND ALL SAFETY MEASURES ARE IN PLACE.

FOUSHÉE SUPERINTENDENT OR DESIGNEE

DATE

Back to TOC

Your Seattle Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 4913 — Temporary Land-based Hot Work

Permit Fee: $ 288.00

_____ / _____

Date Issued **Permit Expiration Date**

TO BE COMPLETED BY PERMIT APPLICANT (PLEASE PRINT)

BUSINESS NAME		
MAILING ADDRESS		SUITE
CITY	STATE	ZIP
JOBSITE ADDRESS		
CONTACT PERSON	PHONE NUMBER ( )	

Payment must accompany all applications. Please include a check made payable to the CITY OF SEATTLE.

Permit applications may be submitted in person weekdays from 8:00 a.m. to 4:30 p.m., or mailed to:

Seattle Fire Department
Fire Marshal's Office – Permits
220 Third Ave S, 2nd Floor
Seattle, WA 98104-2608

To pay with a Visa or Master Card, email this completed application to us, **THEN CALL US TO CONFIRM RECEIPT AND MAKE PAYMENT.**
Tel: (206) 386-1450
E-mail: permits@seattle.gov

Call 206-386-1450, at least 24 hours prior to needed inspection time to arrange for an appointment.

Permission is hereby granted to conduct hot work at the location designated herein, in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, and federal, state, and local regulations.

I understand the conditions of this permit and will ensure all hot work operations are conducted accordingly. I acknowledge that I received an inspection by a Seattle Fire Department inspector today.

_____ _____ _____
Print Name Signature Title

Special permit conditions: _____

_____

_____

THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED

FMO USE: **APPROVED BY:**

Check No.: _____

Receipt No.: _____ Inspector: _____ SFD ID# _____

Application ID#: _____ Date: _____

(01/19)

TEMPORARY LAND-BASED HOT WORK PERMIT CONDITIONS

All of the following conditions must be met prior to the issuance of a permit.

1. Management shall designate a facility employee to be the "responsible person" who shall be responsible for overseeing the onsite hot workers to ensure that required hot work safety measures are taken to prevent fires and fire spread. (SFC 3503.3)

2. The "responsible person" shall be trained in the safety and fire safety considerations concerned with hot work. (SFC 3503.4)

3. The "responsible person" shall survey hot work areas and conduct a pre-hot-work check prior to commencement of hot work. (SFC 3504.3.1)

4. The required pre-hot-work check shall determine compliance with, all of the following:
   - Hot work equipment to be used shall be in satisfactory operating condition and in good repair.
   - Hot work site is clear of combustibles or combustibles are protected.
   - Exposed construction is of noncombustible materials or, if combustible, then protected.
   - Openings are protected.
   - Floors are kept clean.
   - No exposed combustibles are located on the opposite side of partition, walls, ceilings or floors.
   - Fire watches, where required, are assigned.
   - Approved actions have been taken to prevent accidental activation of suppression and detection equipment.
   - Fire extinguishers and fire hoses (where provided) are operable and available. (SFC 3504.3.1)

5. The hot work area shall be inspected by the "responsible person" at least once a day to ensure that the area remains fire-safe. (SFC 3504.3)

6. A fire watch shall be provided during hot work activities and shall continue for a minimum of 30 minutes after the conclusion of the work. The fire code official or the "responsible person" is authorized to extend the fire watch based on the hazards or work being performed. (SFC 3504.2.1)

7. The fire watch shall be positioned so that the extinguishment of a spot fire is not delayed. Hot work conducted in areas with vertical or horizontal fire exposures that are not observable by a single individual shall have additional personnel assigned to fire watches to ensure that exposed areas are monitored. (SFC 3504.2.2)

8. Individuals designated to fire watch shall have no other duties except to watch for fire, extinguish spot fires and communicate an alarm. (SFC 3504.2.3)

9. The individuals responsible for performing the hot work and individuals responsible for providing the fire watch shall have fire-extinguishing equipment readily available and shall be trained in the use of such equipment. (SFC 3504.2.4 & 3504.2.4)

10. A minimum of one portable fire extinguisher having a minimum 2-A: 20-B:C rating and where required by the fire code official, a charged water hose equipped with a nozzle, shall be readily accessible within 30 feet of the location where hot work is performed. (SFC 3504.2.6)

11. Hot work shall not be performed on containers or equipment that contains or has contained flammable liquids, gases or solids until the containers and equipment have been thoroughly cleaned, inerted or purged and certified safe for hot work by a marine chemist.

    Exception: Hot tapping shall be allowed on tanks and pipelines when such work is to be conducted by personnel specifically approved by the fire code official. (SFC 3504.1.7, 105.3)

12. Marine chemist’s certificates where required, shall be posted in a conspicuous location and maintained current. (SFC 105.3)

13. Areas where hot work is conducted shall not contain combustibles or shall be provided with appropriate shielding to prevent sparks, slag or heat from igniting exposed combustibles. (SFC 3504.1.1)

TEMPORARY LAND-BASED HOT WORK PERMIT CONDITIONS

14. Openings or cracks in walls, floors, ducts or shafts within the area where cutting and welding is to be performed shall be tightly covered to prevent the passage of sparks to adjacent combustible areas, or shielding by metal or fire-resistant guards or curtains shall be provided. (SFC 3504.1.2)

15. Floors shall be kept clean within the hot-work area. (SFC 3504.1.3)

16. Oxygen and fuel gas used for hot work shall be limited inside F and S occupancies in accordance with the following:

Type of Gas	Maximum Aggregate Quantity
Acetylene and other nonliquefied fuel gases	1,000 cu. feet in unsprinklered buildings 2,000 cu. feet in sprinklered buildings
LPG and other liquefied fuel gases	735 lbs. water capacity (300 lbs. LPG)
Compressed oxygen	1,500 cu. feet in unsprinklered buildings 3,000 cu. feet in sprinklered buildings
Liquid oxygen (LOX)	45 gallons in unsprinklered buildings 90 gallons in sprinklered buildings

17. Flammable and combustible liquid storage and dispensing shall be separated from hot work operations by a minimum of 50 feet. (SFC 105.3)

18. Cylinders, valves, regulator, hose and other apparatus and fittings for oxygen shall be kept free from oil or grease. Oxygen cylinders, apparatus and fittings shall not be handled with oily hands, oily gloves, or greasy tools or equipment. (SFC 3505.3)

19. Fuel gas cylinders shall be separated from compressed oxygen cylinders and liquid oxygen containers by a minimum of 20 feet or by a barrier of noncombustible construction at least five feet high giving a fire-resistive rating of a least ½ hour. The barrier shall interrupt all lines of sight between oxygen and fuel gas cylinders within 20 feet of each other. (SFC 3505.2.1)

20. When the hot-work area is accessible to persons other than the operator of the equipment, conspicuous signs shall be posted to warn others before they enter the hot-work area. (SFC 3503.6)

    Such signs shall display the following warning: **CAUTION—HOT WORK IN PROGRESS—STAY CLEAR**

ELECTRIC ARC HOT WORK

1. The frame or case of electric hot work machines, except internal-combustion-engine-driven machines, shall be adequately grounded. (SFC 3506.1)

2. Welding return currents from the work to the machine shall have proper electric contact at joints. The electric contact shall be periodically inspected. (SFC 3506.2)

3. Electrodes (i.e. welding rods) shall be removed from the holders when electric arc hot work is discontinued for any period of 1 hour or more. The holders shall be located to prevent accidental contact and the machines shall be disconnected from the power source. (SFC 3506.3)

4. A switch or circuit breaker shall be provided so that fixed electric welders and control equipment can be disconnected from the supply circuit. The switch or circuit breaker shall be marked EMERGENCY DISCONNECT and shall be visible from the equipment. (SFC 3506.4)

5. Damaged cables shall be removed from service until it has been properly repaired or replaced. (SFC 3506.5)

Back to TOC

INCIDENT/EVENT REPORT

Date & Time:	
Project Name & #:	
Location:	
Superintendent:	
Project Manager:	
Report Prepared By:	
Personnel Involved:	
Witnesses:	

Was there a Job Hazard Analysis (JHA)? ☐ Yes ☐ No

Was a procedure in place? ☐ Yes ☐ No

Was the hazard addressed? ☐ Yes ☐ No

Was JHA or procedure followed? ☐ Yes ☐ No

The incident was the result of an
☐ Unsafe Behavior
☐ Unsafe Condition

Description of incident:

Why did the unsafe behavior / condition occur?

Corrective action:

Initiate correction actions:

Report Reviewed By:		Date:	

Supervisor's Accident / Incident Investigation Report

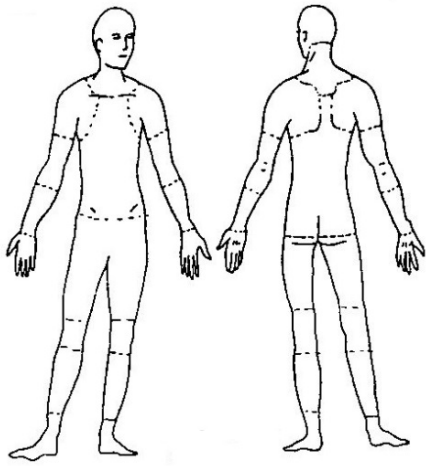
Instructions: Complete this form as soon as possible after an accident/incident that results in serious injury, illness or property damage. (Optional: Use to investigate a minor injury or near miss that *could have resulted in a serious injury or illness*.)

This is a report of a: ☐ Death ☐ Lost Time ☐ Recordable ☐ First Aid Only ☐ Dr. Visit ☐ Near Miss ☑ Incident ☐ Property Damage	
Date of incident:	This report is made by: ☐ Employee ☐ Supervisor ☐ Team ☑ Final Report

Step 1: Injured employee (complete this part for each injured employee)

Name:	Job Title at time of incident:	
Cell Phone #:	Gender: ☐Male ☐Female	Age:
Company:	Project Name:	
Project Address:		

Part of body affected: **(cloud all areas that apply; Tools > Markup > Cloud)**



Nature of injury (most serious one):

☐ Abrasion, scrapes ☐ Amputation
☐ Broken bone ☐ Bruise
☐ Burn (heat) ☐ Burn (chemical)
☐ Concussion (to the head) ☐ Crushing Injury
☐ Cut, laceration, puncture ☐ Hernia
☐ Illness ☐ Sprain, strain
☐ Damage to a body system (e.g.: nervous, respiratory, or circulatory systems)
☐ Other: _____

This employee works: ☐ Regular full time ☐ Regular part time ☐ Seasonal ☐ Temporary	Years / Months with this employer: Months on this job:

Step 2: Describe the accident/incident

Exact location of the accident/incident on job site:	Exact time:

What part of employee's workday? ☐ Entering or leaving work ☐ Doing normal work activities ☐ During meal period ☐ During break ☐ Working overtime ☐ Other

Names of witnesses (if any):

Number of attachments:	Written witness statements:	Photographs:	Maps / drawings:

What personal protective equipment was being used (if any)?

Describe, step-by-step the events that led up to the injury. Include names of any machines, parts, objects, tools, materials, and other important details.

Description continued on attached sheets: ☐

Step 3: Why did the accident/incident happen?

Unsafe workplace conditions: (Check all that apply)	Unsafe acts by people: (Check all that apply)
☐ Inadequate guard	☐ Operating without permission
☐ Unguarded hazard	☐ Operating at unsafe speed
☐ Safety device is defective	☐ Servicing equipment that has power to it
☐ Tool or equipment defective	☐ Making a safety device inoperative
☐ Workstation layout is hazardous	☐ Using defective equipment
☐ Unsafe lighting	☐ Using equipment in an unapproved way
☐ Unsafe ventilation	☐ Unsafe lifting by hand
☐ Lack of needed personal protective equipment	☐ Taking an unsafe position or posture
☐ Lack of appropriate equipment / tools	☐ Distraction, teasing, horseplay
☐ Unsafe clothing	☐ Failure to wear personal protective equipment
☐ No training or insufficient training	☐ Failure to use the available equipment / tools
☐ Other: _____	☐ Other: _____

Why did the unsafe conditions exist?

Why did the unsafe acts occur?

Is there a reward (such as “the job can be done more quickly”, or “the product is less likely to be damaged”) that may have encouraged the unsafe conditions or acts? ☐ Yes ☐ No
If yes, describe:

Were the unsafe acts or conditions reported prior to the incident? ☐ Yes ☐ No

Have there been similar incidents or near misses prior to this one? ☐ Yes ☐ No

Step 4: How can future incidents be prevented?

What changes do you suggest to prevent this injury/near miss from happening again?

☐ Stop this activity ☐ Guard the hazard ☐ Train the employee(s) ☐ Train the supervisor(s)
☐ Redesign task steps ☐ Redesign work station ☐ Write a new policy/rule ☐ Enforce existing policy
☐ Routinely inspect for the hazard ☐ Personal Protective Equipment
☐ Other: _____

What should be (or has been) done to carry out the suggestion(s) checked above?

Description continued on attached sheets: ☐

Step 5: Who completed and reviewed this form? (Please Print)

Written by: Department:	Title: Date:
Names of investigation team members:	
Reviewed by:	Title: Date

Back to TOC

PARKER | SMITH | FEEK AUTOMOBILE INCIDENT REPORT

CLAIMS ASSISTANCE: (425) 709-3600 TOLL FREE: 1-800-457-0220 EMAIL: CLAIMSADMINS@PSFINC.COM

FOLLOW THESE STEPS IF YOU ARE IN AN ACCIDENT

1. **DON'T COMMENT** Do not make statements concerning the assumption of liability.
2. **AID INJURED** Call 911 if necessary. Do not move injured individuals unless absolutely necessary.
3. **TAKE PHOTOS** Scene, vehicles, driver's licenses, insurance cards, etc. (attach photos).
4. **CALL THE POLICE** Give exact location and advise if medical help is needed.

DRIVER'S REPORT

DATE* _____ TIME* _____ ☐ AM ☐ PM

LOCATION OF ACCIDENT _____

NAME OF EMPLOYER / INSURED* _____

ADDRESS _____

CITY / STATE _____ PHONE _____

DRIVER'S NAME* _____ AGE _____

ADDRESS _____

CITY / STATE _____ PHONE _____

EMAIL _____

VEHICLE*: YEAR_____ MAKE _____ MODEL _____

VIN #_____ _____

LICENSE # _____

DAMAGE TO YOUR VEHICLE (PLEASE MENTION IF PHOTOS ARE SENT) _____

OTHER DRIVERS AND VEHICLE(S) INVOLVED

REGISTERED OWNER _____

DRIVER'S NAME* _____

ADDRESS _____

CITY / STATE _____ PHONE _____

EMAIL _____

VEHICLE: YEAR_____ MAKE _____ MODEL _____

LICENSE # _____

INSURANCE CO. / PHONE / POLICY #* _____

DAMAGE _____

DESCRIPTION OF ACCIDENT _____

CLAIM INSTRUCTIONS

1. Immediately after any accident, you must submit this report to ClaimsAdmin@psfinc.com and to your employer.
2. Give other driver(s) your name, address, company's name & address, phone number, license #, and operator's license #.
3. Carefully examine the other vehicle(s) for damage.
4. Use your camera phone to take pictures of the scene. Send photos to ClaimsAdmins@psfinc.com with your name and company.
5. Discuss accident with your employer, police and your insurance company representatives or PS&F staff.
6. Telephone your office at once in case of serious accident.

* REQUIRED

PARKER | SMITH | FEEK AUTOMOBILE INCIDENT REPORT

Back to TOC

CLAIMS ASSISTANCE: (425) 709-3600 TOLL FREE: 1-800-457-0220 EMAIL: CLAIMSADMINS@PSFINC.COM

FOLLOW THESE STEPS IF YOU ARE IN AN ACCIDENT

1. **DON'T COMMENT** Do not make statements concerning the assumption of liability.
2. **AID INJURED** Call 911 if necessary. Do not move injured individuals unless absolutely necessary.
3. **TAKE PHOTOS** Scene, vehicles, driver's licenses, insurance cards, etc. (attach photos).
4. **CALL THE POLICE** Give exact location and advise if medical help is needed.

PERSON(S) INJURED

NAME* _____ AGE _____

ADDRESS _____

CITY / STATE _____ PHONE* _____

EMAIL _____

EXTENT OF INJURY _____

☐ INSURED VEHICLE ☐ OTHER VEHICLE ☐ PEDESTRIAN

NAME* _____ AGE _____

ADDRESS _____

CITY / STATE PHONE*

EMAIL _____

EXTENT OF INJURY _____

☐ INSURED VEHICLE ☐ OTHER VEHICLE ☐ PEDESTRIAN

WHERE TAKEN AFTER ACCIDENT _____

WITNESS(ES)

NAME* _____ AGE _____

ADDRESS _____

CITY / STATE _____ PHONE* _____

EMAIL _____

NAME* _____ AGE _____

ADDRESS _____

CITY / STATE _____ PHONE* _____

EMAIL _____

POLICE

NAME OF OFFICER _____

JURISDICTION (DEPT / SHERIFF / STATE PATROL / ETC.) _____

CASE # _____ BADGE # _____

PHONE _____

REMARKS _____

CLAIM INSTRUCTIONS

1. Immediately after any accident, you must submit this report to ClaimsAdmin@psfinc.com and to your employer.
2. Give other driver(s) your name, address, company's name & address, phone number, license #, and operator's license #.
3. Carefully examine the other vehicle(s) for damage.
4. Use your camera phone to take pictures of the scene. Send photos to ClaimsAdmins@psfinc.com with your name and company.
5. Discuss accident with your employer, police and your insurance company representatives or PS&F staff.
6. Telephone your office at once in case of serious accident.

* REQUIRED

Back to TOC

Job Hazard Analysis

Project Name / Job Number:		**Company Name:**	
Location:		**Address:**	

Task or Step	Hazards	Controls	Personal Protective Equipment (PPE)

JHA by:	
Date:	

Job Hazard Analysis Instructions:

Use this basic form “as is” to identify hazards, controls, and PPE at the job task (or step) level. You can modify the form to meet any additional needs of your workplace. Job Hazard Analysis (JHA) hazard information can be used to develop separate safe work procedures for employee use.

Job: You need to first select a job (or main activity) to observe and analyze.

Tasks or Steps: List tasks or steps that are part of the job you selected in the “Task or Step” column.

> *Example:* “Operating a table saw” would be the job while “Installing a blade” and “Ripping” would be separate tasks.

Hazards: Note any condition in the workplace that can potentially cause occupational injury, death, or disease. Assume that no Personal Protective Equipment (PPE) is being worn - even if it is because hazards could persist if PPE isn’t used. You may choose to add detail about how injuries could occur due to the hazard.

> *Examples of hazards* include: working at heights, slippery surfaces, exposed moving machinery parts, fire, explosion, noise, electricity, toxic emissions, corrosive chemicals, low oxygen, repetitive tasks, heavy lifting, infectious Bloodborne pathogens, assault, and homicide.
>
> *Examples of how injuries can occur*: work at height can result in falls that can result in broken bones, paralysis, or death; noise exposure can cause permanent and severe ringing in the ears and hearing loss; exposure to corrosive chemicals can cause permanent skin damage and blindness; and working in low oxygen areas can lead to sudden suffocation, unconsciousness, and death.

Controls: Note how you will eliminate or minimize the hazard. This doesn’t include PPE.

> *Examples of controls include:* Using a safer tool or equipment or chemical, adding safeguards to machinery, using safer work practices, using local exhaust ventilation for toxic emissions, and enclosing noisy equipment or moving workers away from such equipment to reduce exposure levels.

Personal Protective Equipment (PPE): Detail what type of PPE is needed for each hazard that can’t be eliminated or minimized using controls.

Back to TOC

FOUSHÉE
Founded in 1977

DAILY PRE-TASK PLAN

"PLAN YOUR WORK - WORK YOUR PLAN"

PROJECT NAME/JOB NUMBER:

TASK DESCRIPTION:

CONTRACTOR/SUB: **DATE:**

FOUSHÉE CONTACT:

SUPERINTENDENT/FOREMAN:

COMPETENT PERSON:

LOCATION:

PERMITS:

- ☐ Dig Safe
- ☐ Good Faith Survey
- ☐ Silica Work Plan
- ☐ Trench
- ☐ Crane Lift Plan
- ☐ Hot Work
- ☐ LOTO
- ☐ Other
- ☐ Confined Space
- ☐ Engineering Required
- ☐ Plans/Designs/Data Available
- ☐ Training Certification/Documentation on File

COMPLETE CHECKLIST PRIOR TO BEGINNING NEW TASK. ALL ITEMS MUST BE ADDRESSED PRIOR TO WORK. *SIGNATURES:*

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

HAZARD CONTROL MEASURES:

- ☐ Reviewed with Crew?
- ☐ Competent Person On-Site?
- ☐ SDS Reviewed with Crew?
- ☐ Coordination Necessary with Other Trades?
- ☐ Barricade/Signage in Place?
- ☐ Area House Kept?
- ☐ Overhead powerlines: voltages and distances known?
- ☐ Security/fence in place?

****MINIMIZE OR ELIMINATE HAZARDS THROUGH ENGINEERING CONTROLS, I.E., WET METHODS, VENTILATION, BARRIERS, TOOLS, EQUIPMENT**

REQUIRED PPE:

- ☐ Hard Hat
- ☐ Gloves
- ☐ Respirator
- ☐ HI Visibility Vest
- ☐ Safety Glasses
- ☐ Work Boots
- ☐ Face Shield
- ☐ Goggles

ASSOCIATED WORK HAZARDS:

- ☐ Asbestos
- ☐ Lead
- ☐ Silica
- ☐ Carbon Monoxide
- ☐ Changes in Grade
- ☐ Chain-Handling
- ☐ Confined Space
- ☐ Flying Debris/Grinding
- ☐ Slips/Trips/Falls
- ☐ Electrical Hazards
- ☐ Elevated Work
- ☐ Environmental Hazards
- ☐ Awkward Body
- ☐ Falling Objects
- ☐ Fumes/Vapors
- ☐ Steam
- ☐ Access/Egress
- ☐ High Voltage Power Lines
- ☐ Inadequate Ventilation
- ☐ Open Hole
- ☐ Pinch Points
- ☐ Repetitive Motion
- ☐ Rotating Equipment
- ☐ Moving Equipment
- ☐ Congested Areas
- ☐ Cranes in Area
- ☐ Inadequate Lighting
- ☐ PPE Inspected
- ☐ Overhead Work
- ☐ Excessive Noise
- ☐ Housekeeping
- ☐ Pneumatic Tool Use
- ☐ Chemicals
- ☐ Vehicle Traffic
- ☐ Twisting/Bending
- ☐ Line of Fire

NOTES:

FALL PROTECTION PLAN (Equipment & Method):

- ☐ Fall protection required at elevations 4' or more.
- ☐ Competent person has inspected equipment prior to use
- ☐ Vertical/horizontal life line
- ☐ 100% tie off with full body harness
- ☐ Lanyard, deceleration device
- ☐ Anchor point identified by competent person
- ☐ Written fall protection plan in place for fall hazards of >/= 10'
- ☐ Guard rails in place

** MEANS OF EMERGENCY RESCUE:

SCAFFOLDS/LADDERS:

- ☐ Competent person has inspected scaffold before use and signed/dated inspection tag
- ☐ Inspect all ladders before use
- ☐ Ladders are secured top/bottom

CONFINED SPACE ENTRY:

- ☐ Competent person on-site to evaluate entry
- ☐ Confined space entry permit filled out

fork lifts/heavy equipment/aerial lifts:

- ☐ Trained/qualified/certified
- ☐ Inspect equipment prior use
- ☐ Alarms functional, fire extinguisher, seat belt, spotter as required

TRENCH/EXCAVATION ENTRY:

- ☐ Daily trench/excavation inspection checklist signed by competent person
- ☐ Protective system installed at 4 ft
- ☐ Egress/ladders every 25 ft of travel
- ☐ Spoils at least 2 ft away from trench edge

CRANES & RIGGING:

- ☐ Crane lift plan completed
- ☐ Pre lift crane meeting
- ☐ Certified operator, rigger, signaler
- ☐ Rigging inspected and set up by competent person
- ☐ Designated Lift Director

Qualitative Fit Test Form for Stannic Chloride

Name: _____ **Date:** _____

Company/Organization: _____

Medical Questionaire Completed? ☐Yes ☐No Date: _____

Respiratory Training Completed? ☐Yes ☐No Date: _____

Approved for Respirator use and wear? ☐Yes ☐No

Tested with necessary PPE? ☐Yes ☐No

Respirator Make: _____ **Model:** _____ **Size:** _____

Canister or Cartridge used: _____

Respirator Type: (Circle One)
☐Dust Mask ☐Air Purifying ☐PAPR ☐Supplied Air
☐Escape Only ☐Pressure Demand ☐SCBA

If respirator is a Dust Mask, please specify the rating:

☐N95 ☐N99 ☐N100 ☐R95 ☐R99 ☐R100 ☐P95 ☐P99 ☐P100

Tight fitting, positive pressure respirators are to be fit tested in the negative pressure mode.

Do not use a hood for this test

- Mirror available
- Respirator must be equipped with P100 filters.
- Position respirator
- Person must wear respirator for at least 5 minutes
- Check comfort
- Check fit
- Provide second choice of respirator if necessary
- Adjust properly
- Perform positive and negative pressure check
- Describe Test procedure and method
- Procedure: Normal Breathing 1 minute
- Deep breathing 1 minute turning head side to side
- Moving head up and down for 1 minute
- Talk loudly or read loudly for 1 minute
- Bend at the waist as if to touch toes for 1 minute
- Normal breathing for 1 minute
- Any adjustements during the test voids test and you must start over
- Cover the end of the tube with a short piece of plastic tube to protect wearer from jagged edges.
- Take procautions to minimize wearers exposure to smoke.
- Perform test in area with adequate ventilation
- Smoke is administered for each of the test positions described earlier.
- No evidence of response, have wearer remove the respirator. Give wearer small dose without respirator, if they respond, test is passed.
- If there is no response by the wearer to the smoke, the test is void.

PROCEDURE

1. Put on the respirator
    Position the respirator on the face
    Set strap tension
    Determine an acceptable fit
2. Provide a mirror for employees to use.
3. Infom wearer that they are asked to select the respirator that provides the most acceptable fit.
    Each respirator represents d different size and fit.
    If fitted and used properly, each respirator will provide adequate protection
4. Hold respirator up to face and eliminate those that do not give an acceptable fit.
5. The most comfortable mask must be worn at least five minutes
    If unfamiliar with mask, have them put it on several times.
6. Check for comfort by insuring room for eye protection, room to talk, position on face and cheeks.
    Anytime during the testing procedure, if the respirator must be refitted to face, the test is void and must be started over.
7. Complete positive and negative seal check.
8. Insure no beards or stubble, hair or mustache and sideburns to affect sealing surface.
9. Normal breathing 1 minute.
10. Deep breathing 1 minute
11. Turning head side to side at extreme positions for 1 minute
12. Moving head up and down at extreme positions for 1 minute.
13. Talking out loud slowly and loud enough for tester to hear clearly for 1 minute, recite the rainbow passage or count down from 100.
14. Bending over at the waist as if to touch the toes for 1 minute
15. Normal breating again for 1 minute.
16. At each test step introduce smoke to the sealing surface.
17. Give wearer pssing the smoke test, without evidence of response a second sensitivity screening check with the smoke from the same tube. If they react to the smoke, they pass the test. The fit test is void if an employee does not respond to the smoke not wearing the respirator.

Did the wearer complete all the above requirements? ☐Yes ☐No
This respirator fit test is: ☐Satisfactory ☐Unsatisfactory
Reason for failure (if applicable):

Steps to be taken prior to the next fit test (if applicable):

Wearer's signature: _____ **Date:** _____

Program Administrator's Signature: _____ **Date:** _____

Fit Testing Official's Signature: _____ **Date:** _____

Fit Testing Official's Company: _____

My signature on this document indicates my agreement to use the assinged respirator in an approved manner in accordance with State and Federal requirements governing their use and limitations. I will abide by the policies of my employer regarding the use of the respirator for which I have been trained.

FOUSHÉE
Founded in 1977

SAFETY MEETING AGENDA

MEETING LEADER: _____ JOB NAME/#: _____

DATE: _____ MUSTER POINT: _____

THIS WEEK'S TOPIC (REVIEW INCIDENTS, NEAR MISSES, JOBSITE SAFETY ITEMS, NEW EVENTS, TOPICS):

WORKER SAFETY RECOMMENDATIONS/CONCERNS:

REVIEW RECENT JOB SAFETY INSPECTION:

ATTENDANCE: (ALL PERSONS ATTENDING MUST SIGN IN)
FOUSHÉE EMPLOYEES:

SUBCONTRACTORS: (NOTE: EMPLOYER NAME AFTER SIGNATURE)

I have reviewed my company's Project Safety Plan and I understand all the General Safety Rules and specific job site hazards. I have been made aware of the work-related hazards that I may be exposed to, including chemical hazards that have been identified to me. I understand that if I have any questions I may talk to my supervisor.

FOUSHÉE
Founded in 1977

FOUSHÉE JOB SAFETY INSPECTION

JOB NUMBER: _____ DATE: _____

JOB NAME: _____ INSPECTION BY: _____

SUPERINTENDENT: _____

		YES	NO	ACTION NEEDED (BY WHOM)	CORRECTED (WHO/DATE)
1.	Housekeeping: Walkways & aisles are adequate and clear of debris. Holes 1" & greater covered/secured and marked "hole".	☐	☐		
2.	Work areas clear of rubbish, debris, etc.	☐	☐		
3.	Site is organized and clean.	☐	☐		
4.	Floor & roof areas protected with guardrails or area is secured.	☐	☐		
5.	Ladders & scaffolds erected properly and tied off. Inspected before use.	☐	☐		
6.	Fall protection used (if appropriate).	☐	☐		
7.	Fall protection plans posted.	☐	☐		
8.	Hand & power tools in proper and safe conditions.	☐	☐		
9.	Illumination & ventilation adequate.	☐	☐		
10.	Sanitation adequate.	☐	☐		
11.	Hard hats & safety shoes used.	☐	☐		
12.	Eye & ear protection used (if applicable)	☐	☐		
13.	First aid supplies are adequate and in order.	☐	☐		
14.	Fire extinguishers are readily available with current annual and monthly inspection.	☐	☐		
15.	Equipment grounded and cords checked.	☐	☐		
16.	Flammable and combustible liquids & materials are stored in proper containers.	☐	☐		
17.	Storage areas for all materials in proper condition.	☐	☐		
18.	Safety rules are being followed.	☐	☐		
19.	Hazardous chemicals properly handled.	☐	☐		
20.	Accident safety sign current with actual number of accident free days.	☐	☐		
21.	Safety bulletin board and jobsite signage is neat and up-to-date.	☐	☐		
22.	Material Handling (forklifts, cranes) operators are certified and equipment inspected daily.	☐	☐		
23.	Aerial lift operators are qualified, and equipment inspected daily.	☐	☐		

GENERAL NOTES:

FOUSHÉE
Founded in 1977

FOUSHÉE JOB SAFETY INSPECTION SIGN IN SHEET

PRINTED NAME	SIGNATURE	COMPANY	DATE

FOUSHÉE
Founded in 1977

SAFETY ORIENTATION

1. Report all on the job injuries and incidents immediately to a Foushée Superintendent or Foreman.
2. Report unsafe conditions and hazards to your Superintendent or Foreman or Foushée.
3. First-Aid supplies, treatment, locations of nearest clinic facilities, hospital, and First Aid trained personnel are posted at the Safety Board located at the Field Office (or as specified by the Project Superintendent).
4. General safety rules, project safety rules, weekly safety meeting attendance, emergency procedures, exit locations, evacuation routes, gathering points, the Safety Board, and fire extinguisher locations have been explained.
5. Use and care of personal protective equipment & clothing requirements: hard hats, eye protection where there is danger from flying debris/ particles, hi-visibility garment (core/shell projects, heavy equipment, flagging activity requires Class 2 or 3), appropriate footwear & minimum short sleeved shirt and long pants. Fall protection, gloves, ear protection, goggles, and respiratory protection as per task requirements.
6. A fall protection system is required when there is exposure to a fall hazard of 4 feet or greater. Proper handrails and guardrails will be installed where required.
7. Good housekeeping practice is required daily. Keep the jobsite clean, keep pathways, exits, stairways, and emergency equipment clear of obstacles.
8. Know the materials you are using. Review Safety Data Sheets, their hazards and safe handling with your supervisor. Ask your supervisor if you have questions. SDS's are located at the Field Office.
9. No drugs, alcohol or firearms allowed on the jobsite. Observe no smoking signs. Smoking in designated areas only. Post-accident, property damage, and reasonable suspicion drug testing may be requested.
10. Do not operate any power tool or equipment unless you are trained in its operation and have authorization. A daily inspection is required before use and do not operate if unsafe or needs repair. Notify your supervisor.
11. Proper guards or shields must be installed on all power tools before use and in good working condition.
12. All electrical power tools (unless double insulated), extension cords, and equipment must be properly grounded. Damaged electrical cords must be replaced.
13. Inspect ladders before use, always face when climbing, do not carry objects, secure ladder in place.
14. Use safe lifting procedures and get help with heavy or bulky materials to avoid injury or damage.
15. Respect red danger warning zones and Do Not cross without permission.
16. No radios, headphones, ear-pods allowed to interfere with emergency notifications.

I understand the above information and accept the responsibility for maintaining a safe and healthful work environment. I am aware that the aforementioned safety rules are a condition of my employment. This project specific safety orientation does not take the place of, and it is not intended to be used as the project specific orientation that is required of your employer. ****All attendees must Sign, Print Name and Date on Page 2***

Supervisor Signature	Print Name	Date Signed

Attendees Signature	Print Name	Date Signed

SUPPORTED SCAFFOLD CHECKLIST

Project: _____ Inspected by: _____ Date: _____

Scaffold Location: _____ Supervisor: _____

The following items should be visually checked prior to working on scaffolding. If during the inspection a defect or damage to the scaffold is discovered, the scaffold must be tagged out and not used until repairs are made. Report defect or damage immediately to the Project Superintendent or Foreman.

	YES	NO	N/A
Has a competent person inspected the scaffold before each work shift, and is there a Green tag posted indicating ready to use?	☐	☐	☐
Scaffolds should be set on sound footing.	☐	☐	☐
Scaffolds have not been altered.	☐	☐	☐
All scaffolds are fully planked with gaps between the planking no wider than one inch.	☐	☐	☐
Scaffold planks must extend over their end supports not less than 6 inches nor more than 12 inches.	☐	☐	☐
Are guardrails, and planking in place and secure?	☐	☐	☐
Are toe boards installed or other means in place to guard against falling objects?	☐	☐	☐
Are locking pins at joints in place?	☐	☐	☐
Is there an access ladder or other safe access?	☐	☐	☐
Scaffolds should not be loaded with more weight than they were designed to support.	☐	☐	☐
Scaffold platforms must be at least 18 inches wide.	☐	☐	☐
Is overhead protection provided on a scaffold exposed to overhead hazards?	☐	☐	☐
Do not change or remove scaffold members unless authorized.	☐	☐	☐
Scaffolds are not erected or moved within 10 feet of power lines.	☐	☐	☐
Employees are not permitted to work on scaffolds in bad weather or high winds unless a competent person has determined that it is safe to do so.	☐	☐	☐
Ladders, boxes, barrels, buckets or other makeshift platforms are not used to raise work height.	☐	☐	☐
Extra material is not allowed to build up on scaffold platforms.	☐	☐	☐
Are at least two corners of the base plates nailed to the mud sills?	☐	☐	☐

Notes:_____

Controlling Silica Exposure Using Table 1

Equipment/Task	Engineering and Work Practice Control Methods	Respirator Requirements and Minimum Assigned Protection Factor (APF) for 4 Hours or Less	Respirator Requirements and Minimum Assigned Protection Factor (APF) for More Than 4 Hours
Stationary masonry saws 	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	(none required) 	(none required) 
Handheld power saws (any blade diameter) 	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions:		
	- when used outdoors	(none required) 	(APF 10 required) 
	- when used indoors or in an enclosed area	(APF 10 required) 	(APF 10 required) 
Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less) 	For tasks performed outdoors only: • Use saw equipped with commercially available dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the airflow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	(none required) 	(none required) 

Equipment/Task	Engineering and Work Practice Control Methods	Respirator Requirements and Minimum Assigned Protection Factor (APF) for 4 Hours or Less	Respirator Requirements and Minimum Assigned Protection Factor (APF) for More Than 4 Hours
Walk-behind saws 	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions:		
	- when used outdoors	(none required) 	(none required) 
	- when used indoors or in an enclosed area	(APF 10 required) 	(APF 10 required) 
Drivable saws 	For tasks performed outdoors only: • Use saw equipped with integrated water delivery system that continuously feed water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	(none required) 	(none required) 
Rig-mounted core saws or drills 	• Use tool equipped with integrated water delivery system that supplies water to cutting surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	(none required) 	(none required) 

Equipment/Task	Engineering and Work Practice Control Methods	Respirator Requirements and Minimum Assigned Protection Factor (APF) for 4 Hours or Less	Respirator Requirements and Minimum Assigned Protection Factor (APF) for More Than 4 Hours
Handheld and stand-mounted drills (including impact and rotary hammer drills) 	• Use drill equipped with commercially available shroud or cowling with dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the airflow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes.	(none required) 	(none required) 
Dowel drilling rigs for concrete 	For tasks performed outdoors only: • Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes.	(APF 10 required) 	(APF 10 required) 
Vehicle-mounted drilling rigs for rock and concrete 	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector.	(none required) 	(none required) 
	OR		
	Operate from within an enclosed cab and use water for dust suppression on drill bit.	(none required) 	(none required) 

Equipment/Task	Engineering and Work Practice Control Methods	Respirator Requirements and Minimum Assigned Protection Factor (APF) for 4 Hours or Less	Respirator Requirements and Minimum Assigned Protection Factor (APF) for More Than 4 Hours
Jackhammers and handheld powered chipping tools 	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact:		
	- when used outdoors	(none required) 	(APF 10 required) 
	- when used indoors or in an enclosed area	(APF 10 required) 	(APF 10 required) 
	OR		
	• Use tool equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the airflow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism:		
	- when used outdoors	(none required) 	(APF 10 required) 
	- when used indoors or in an enclosed area	(APF 10 required) 	(APF 10 required) 
Handheld grinders for mortar removal (i.e., tuckpointing) 	• Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	(Half mask required) 	(APF 25 required) 

Equipment/Task	Engineering and Work Practice Control Methods	Respirator Requirements and Minimum Assigned Protection Factor (APF) for 4 Hours or Less	Respirator Requirements and Minimum Assigned Protection Factor (APF) for More Than 4 Hours
Handheld grinders for uses other than mortar removal 	For tasks performed outdoors only: • Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	(none required) 	(none required) 
	OR		
	• Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism:		
	- when used outdoors	(none required) 	(none required) 
	- when used indoors or in an enclosed area	(none required) 	(APF 10 required) 

Equipment/Task	Engineering and Work Practice Control Methods	Respirator Requirements and Minimum Assigned Protection Factor (APF) for 4 Hours or Less	Respirator Requirements and Minimum Assigned Protection Factor (APF) for More Than 4 Hours
Walk-behind milling machines and floor grinders 	• Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	(none required) 	(none required) 
	OR		
	• Use machine equipped with dust collection system recommended by the manufacturer. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the airflow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.	(none required) 	(none required) 
Small drivable milling machines (less than half-lane) 	• Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant. • Operate and maintain machine to minimize dust emissions.	(none required) 	(none required) 

Equipment/Task	Engineering and Work Practice Control Methods	Respirator Requirements and Minimum Assigned Protection Factor (APF) for 4 Hours or Less	Respirator Requirements and Minimum Assigned Protection Factor (APF) for More Than 4 Hours
Large drivable milling machines (half-lane or larger) 	For cuts of any depth on asphalt only: • Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions.	(none required) 	(none required) 
	For cuts of four inches in depth or less on any substrate: • Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions.	(none required) 	(none required) 
	OR		
	• Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant. • Operate and maintain machine to minimize dust emissions.	(none required) 	(none required) 
Crushing Machines 	• Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyors, sieves/sizing or vibrating components, and discharge points). • Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. • Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.	(none required) 	(none required) 

Equipment/Task	Engineering and Work Practice Control Methods	Respirator Requirements and Minimum Assigned Protection Factor (APF) for 4 Hours or Less	Respirator Requirements and Minimum Assigned Protection Factor (APF) for More Than 4 Hours
Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials 	Operate equipment from within an enclosed cab.	(none required) 	(none required) 
	When employees outside of the cab are engaged in the task, apply water and/or dust suppressant as necessary to minimize dust emissions.	(none required) 	(none required) 
Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: Demolishing, abrading, or fracturing silica-containing materials 	Apply water and/or dust suppressants as necessary to minimize dust emissions.	(none required) 	(none required) 
	OR		
	When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	(none required) 	(none required) 

SILICA EXPOSURE CONTROL TRAINING
Employee Acknowledgement

I acknowledge that I have been trained in silica/fugitive dust policy/procedures and that the training included the following points:

1. Routes of exposure to silica.
2. The known health effects associated with silica exposure.
3. The importance of good personal hygiene.
4. The specific methods of controlling exposures to silica.
5. The proper use and maintenance of protective clothing and equipment.
6. The correct engineering controls and implementation of good work practices.
7. The purpose, proper selection, fitting, use and limitations of respirators.
8. The specific nature of the operations that could result in exposures to silica above the permissible exposure limit.
9. Access to information and regulations.

Supervisor Signature: _____ Date: _____

Date	Project	Name	Signature

Back to TOC

Your Silica Control Plan

Company:
Foushee

Person Completing the Plan/Title:
Rob Virtue/Safety

Jobsite/Project:
General work plan

Description of Work:
General assigned work as needed for mixing/cutting/drilling/sweeping of related cement, concrete, and drywall products.

Competent Person
Superintendent
(_____)

1

Material: Cement
Task: Mixing/pouring

Equipment and Control(s)
Mixer

Task/Control Description
Mixing bags of cement in mixer. Respirators if required.

2

Material: Concrete
Task: Bushhammering

Equipment and Control(s)

Task/Control Description
Bushammering concrete for repair using vacuum attachment and/or respirator as required.

3

Material: Concrete
Task: Cutting/sawing

Equipment and Control(s)
1) Hand-Held Angle Grinder with Vacuum (Table 1 Entry), 2) Hand-Held Masonry Saw with Water (Table 1 Entry), 3) Hand-held Cutter with Dust Extraction (Table 1 Entry)

Task/Control Description
Cutting/sawing concrete with hand held angle grinder or cutter with vacuum device or masonry saw with water attachment.

4

Material: Concrete
Task: Demolishing/disturbing

Equipment and Control(s)
Ducted Fan Unit with Water

Task/Control Description
Use ventilation/exhaust, negative air with HEPA filter, and respiratory protection if required. Refer to Table 1.

5

Material: Concrete
Task: Drilling/coring

Equipment and Control(s)
1) Hand-Held Drill with Dust Extraction (Table 1 Entry), 2) Hand-Held Drill with Vacuum (Table 1 Entry)

Task/Control Description
Hand held drilling with dust extraction or vacuum as per Table 1.

6

Material: Concrete
Task: Grinding

Equipment and Control(s)
1) Hand-Held Angle Grinder with Vacuum (Table 1 Entry), 2) Hand-Held Grinder with Dust Control (Table 1 Entry), 3) Hand-Held Grinder with Vacuum (Table 1 Entry), 4) Hand-Held Grinder with Water (Table 1 Entry), 5) Hand-held Grinder with Dust Extraction (Table 1 Entry)

Task/Control Description
Hand held angle grinder or grinder with vacuum or dust control per Table 1.

7

Material: Concrete
Task: Sacking/patching

Equipment and Control(s)
Respiratory Protection

Task/Control Description
Patching concrete as needed. Respiratory protection if required.

8

Material: Concrete
Task: Scabbling

Equipment and Control(s)
Walk-Behind Scabbler with Vacuum (Table 1 Entry)

Task/Control Description
Scabbling floor with vacuum per Table 1.

9

Material: Concrete
Task: Sweeping/cleaning up

Equipment and Control(s)
Sweeping Compound

Task/Control Description
Use of sweeping compound for sweeping floor.

10

Material: Concrete Block
Task: Cutting/sawing

Equipment and Control(s)
Hand-Held Masonry Saw with Water (Table 1 Entry)

Task/Control Description
Cutting concrete block with masonry saw and water attachment per Table 1.

11

Material: Concrete Block
Task: Sweeping/cleaning up

Equipment and Control(s)
Sweeping Compound

Task/Control Description
Sweeping concrete dust with sweeping compound.

12

Material: Drywall
Task: Cutting/sawing

Equipment and Control(s)
Respiratory Protection

Task/Control Description
Use of respiratory protection or vacuum attachment.

13

Material: Drywall
Task: Demolishing/disturbing

Equipment and Control(s)
Respiratory Protection

Task/Control Description
Use of respiratory protection.

14

Material: Drywall
Task: Drilling/coring

Equipment and Control(s)
Respiratory Protection

Task/Control Description
Use of respiratory protection or vacuum attachment.

15

Material: Drywall
Task: Sanding

Equipment and Control(s)
1) Hand Sander with Vacuum, 2) Low-Dust Drywall Joint Compound

Task/Control Description
Use of sander with dust collection/vacuum.

16

Material: Drywall
Task: Sweeping/cleaning up

Equipment and Control(s)
Sweeping Compound

Task/Control Description
Use sweeping compound for dust.

Safety of Others:

Use of controlled access work zone. Barricade tape or other barrier with signage to communicate activity, hazard, and supervisor contact will be posted and maintained. Communication of controlled access zones will be provided to all workers and supervision on the jobsite.

Worker Training:

Workers will be trained on the hazards, types of equipment and effective personal protection and dust extraction/vacuum attachment available for the specific task. Reference Table 1.

Housekeeping:

Sweeping compound will be used for cleaning floors. Housekeeping will be conducted daily and throughout the day to prevent/minimize risk. Workers will be trained on these elements.

Medical Surveillance:

Medical surveillance will be provided as needed to any worker exposed to threshold.

Other Considerations:

Pre-planning, pre-construction, Job Hazard Analysis, and updating silica plans will be required.

SILICA

1.0.1 The purpose of this program is to assure that all Foushée employees who work with or around Silica are provided with safe, effective and efficient protective methods and procedures.

2.0 SCOPE

2.0.1 This procedure applies to all Foushée employees.

3.0 DEFINITIONS

3.0.1 Competent Person: Person capable of identifying existing and predictable silica hazards in and around the work area and who has the authorization to take prompt corrective measures to eliminate them.

3.0.2 Feasible: Shall be determined by the Safety Department.

3.0.3 High Efficiency Particulate Accumulator (HEPA): A HEPA filter is rated at 99.97% efficient for particulate matter to 0.3 microns in size.

3.0.4 Permissible Exposure Limit (PEL): Legal employee exposure level set by OSHA. The PEL for Silica is 50 ug/m3.

3.0.5 Silica: Silica is a general term for silicon dioxide (Si02). Silica is the second most common mineral in the earth's crust. Silica is commonly referred to as silica sand, free-silica, quartz, cristobalite and tripoli. Silica exposure could result from abrasive blasting with silica and/or sandblasting, cutting, drilling, grinding and chipping a concrete and/or masonry surfaces.

4.0 EXPOSURE ASSESSMENT

4.0.1 All work shall be performed as indicated in Table 1 of WAC 296-840.

When using Table 1 for identified tasks, exposure monitoring is not required.

4.0.2 Based on identified work tasks and work done in compliance to Table 1, workers should not be exposed to silica above the PEL or AL.

4.0.3 If new tasks not identified in Table 1 become identified, exposure monitoring may be required. In this event, Foushée will treat the employee as if he/she is exposed above the PEL until engineering controls can be implemented to eliminate the exposure.

4.0.4 If Foushée choses to deviate from Table 1 data, exposure monitoring shall be done to determine employee exposures to silica

5.0 ENGINEERING AND WORK PRACTICE CONTROLS

5.0.1 All work shall be done in strict compliance with Table 1

6.0 RESPIRATORY PROTECTION

6.0.1 Respirators shall be used according to Table 1.

7.0 PROTECTIVE CLOTHING

7.0.1 Silica dust shall not be removed from protective clothing or equipment by blowing, shaking, or any other methods which disperses silica into the air. Cleaning shall be done with HEPA vacuum.

8.0 HOUSEKEEPING

8.0.1 All surfaces shall be maintained as free as practicable from silica dust accumulation.

8.0.2 Methods of clean up shall be those which minimize the amount of silica dust becoming airborne. No sweeping or compressed air shall be used to clean surfaces.

8.0.3 Vacuums shall be equipped with HEPA filters. Once used, they shall be emptied in a manner which minimizes the re-entry of silica into the work place.

9.0 SIGNS AND BARRICADES

9.0.1 Foushée shall assure that signs are posted and barricades, such as tape or rope are used to restrict people from entering the work area where concrete cutting is done.

10.0 HYGIENE FACILITIES

10.0.1 Food, beverages and tobacco products shall not be present or consumed within the barricaded areas or in areas.

10.0.2 Employees shall be instructed to wash their face and hands before eating, drinking, smoking or applying cosmetics.

11.0 MEDICAL SURVEILLANCE

11.0.1 Medical surveillance shall be provided at no cost to employees who are, or might be, exposed to silica above the PEL, including those potentially exposed where airborne concentrations are unknown. This must be done prior to job start up and at job completion. As a result of Foushée complying strictly with Table 1, no medical surveillance shall be needed.

12.0 RECORDKEEPING

12.0.1 Medical records shall be made available upon request of an employee, former employees, their designated representatives and DOSH.

12.0.2 All employees' medical and exposure records are to be maintained for the duration of employment plus thirty (30) years.

13.0 TRAINING

13.0.1 All Foushée employees shall be trained prior to job start up. Training shall consist of the following:

1. Instruct each employee in the recognition and avoidance of unsafe conditions concerning silica.
2. Notify employees of all the facts concerning potential physical and health hazards and potential adverse health effects caused by silica exposure.
3. Discuss guidelines regarding personal hygiene, personal protective measures, and the equipment required.
4. Explain and discuss the Hazard Communication Program and Silica Protection Program. Include information about proper labeling and material safety data sheets.
5. Instruct on the Personal Protective Equipment Program and Respiratory Protection Program, including selection, inspection, use and maintenance of respirators.

13.0.2 Training shall be documented and kept on record at the jobsite. Forward training records to the main office once the job is complete.

Back to TOC

Daily Excavation Inspection

This checklist must be completed prior to the start of work and as needed throughout the shift. Inspections must be made after every rainstorm or other hazard event and as site conditions change.

JOB SITE LOCATION:			
COMPETENT PERSON:		**DATE:**	
WEATHER CONDITIONS:	**SOIL TYPE:**		

Minimum PPE Required: hard hat, safety glasses, high-visibility garment, work shoes.

Have the following items been evaluated?	**YES**	**NO**	**N/A**
Inspection conducted by competent person prior to start of excavation activity?	☐	☐	☐
Remove, support and safeguard surface encumbrances creating a hazard to employees.	☐	☐	☐
Have all locates been conducted?	☐	☐	☐
While exacvation is open, protect, support or remove underground installations. Is a utility monitor needed?	☐	☐	☐
Has a pre-trenching and excavation safety meeting been conducted?	☐	☐	☐
Hand digging within 24 inches of locating utilities?	☐	☐	☐
Is there safe egress and access in trench excavations with no more that 25 feet of egress travel	☐	☐	☐
Employees are not permitted underneath loads handled by lifting or digging equipment.	☐	☐	☐
Is a warming system in place for adjacent mobile equipment such as barricades, hand or mechanical signals?	☐	☐	☐
Evaluated for potential hazardous atmosphere and confined space?	☐	☐	☐
Employees must not work if water has accumulated without proper support, sheilding or operational water removal systems.	☐	☐	☐
Are sidewalks, pavements, adjoining buildings, and adjacent structures protected from collapse?	☐	☐	☐
Are loose rock, soil and equipment protected from falling in the excavation?	☐	☐	☐
Are spoils and equipment kept at least 2 feet from the edge?	☐	☐	☐
Do walkways, such as access over trenches and excavations over 4 feet deep, have guardrails?	☐	☐	☐
Are sloping and benching systems designed appropriately or by a RPE?	☐	☐	☐
Protective systems used are designed or approved by a RPE.	☐	☐	☐
Sloping or benching for excavations greater than 20 feet deep shall be designed by a RPE.	☐	☐	☐
Is tabulated data/certifications for shoring and shields on site?	☐	☐	☐
Have protective systems been inspected for damaged panels, pins, etc.?	☐	☐	☐
Is the protective system kept no more than 2 feet from the bottom of the trench?	☐	☐	☐
Do stacked boxes have pins in place?	☐	☐	☐
Are all overhead hazards evaluated for clearance?	☐	☐	☐
Is there a minimum of 10 feet clearance from power lines?	☐	☐	☐
Are surcharges,such as excavators, trucks and cranes, evaluated along trench edges?	☐	☐	☐
Are all non essential employees kept at least 15 feet away from trenches and excavations over 10 feet deep?	☐	☐	☐
Are all wells, deep and unique trenches and excavations, pits, shafts and manholes properly covered?	☐	☐	☐

COMPETENT PERSON SIGNATURE		**DATE:**	
NOTES:			

Back to TOC

WCISAP: WASHINGTON CONSTRUCTION INDUSTRY SUBSTANCE ABUSE PROGRAM
TEST AUTHORIZATION

Collectors - See Instructions Below in Section 2!

Attention: Participating Employers **Use this form only when testing the following employees for WCISAP:**

Carpenters	**Laborers**	**Participating Non-Bargaining**
Cement Masons Local 528	**Glaziers Local 188**	**Office Staff**

Employers: Complete Section 1 below. Employees must report to a WCISAP authorized collection site and present this document upon arrival at the facility.

SECTION 1: TEST INFORMATION - MUST BE COMPLETED!
(To receive WCISAP card and reimbursement check,* we must have employee's trade, address & Social Security No.)

Employee Name (please print) | **Employer Name (please print)** | **Employer Phone Number**

Employee Social Security Number | **Supervisor's Name**

Employee Address (Street) (City) (State) (Zip)

Employee Type:

Bargaining Unit Employee — Non-Bargaining Office Staff

Carpenter Laborer Cement Mason Glazier (*L188 members test on company time -- no reimbursement is issued.)

Test Type: Pre-Program Post-Accident** Reasonable Suspicion**

**** POST-ACCIDENT AND REASONABLE SUSPICION TESTS REQUIRE A BREATH ALCOHOL TEST.** The employee must report to a collection site that offers this type of test. Note: Necessary medical attention should always be provided before testing an employee for drugs or alcohol. If an employee is suspected to be under the influence of drugs or alcohol, the employer must accompany the employee to the collection site and arrange for transportation to their home. Complete the Post-Accident/Reasonable Suspicion Documentation Form (Tab 1) and retain a copy of it for your files. A copy of this form is not required by the collection site. No reimbursement check is issues for these tests.

SECTION 2: COLLECTION SITE INSTRUCTIONS

IMPORTANT INFORMATION: **1. WRITE EMPLOYER NAME IN LOCATION FIELD ON CHAIN OF CUSTODY**

2. WHEN COLLECTION IS COMPLETE, FAX THIS FORM, & BAT RESULTS (if applicable) TO (206) 441-3009

3. SEND INVOICE TO CONCENTRA: 28035 Avenue Stanford, Valencia, CA 91355 -- not to the employer

Name of Laboratory:	LabCorp	
Account Name:	WCISAP	
Account Number:	Bargaining Unit Employee: **273498**	Non-Bargaining Unit Employee*:* **273377**
Test Profiles:	Pre-Program:	Default
	Post-Accident, Reasonable Suspicion:	Default plus Breath Alcohol Test
Special Requirements:	Split Specimen	