
Otak Safety

Manual



Otak Safety Manual - TABLE OF CONTENTS

SECTION - Opening Statement

1. Safety & Health Policy Statement

SECTION - Operations

2. Job Hazard Analysis
3. General Safety
4. Personal Protective Equipment (PPE)
5. Wildfire Smoke
6. Motor Vehicle and Bicycle Safety
7. Confined Space Entry
8. Aerial, Scissor Lifts & Fall Protection
9. Ladder Safety
10. Thermal Stress
11. Lone Workers

SECTION - General Requirements

12. Health Hazard Awareness
13. Emergency Action Plan (EAP)
14. Roles & Responsibilities
15. Employee Safety Orientation
16. Training
17. Investigations (Accidents & Incidents)
18. Return to Work
19. Safety Committee
20. Recordkeeping
21. Safety Inspections

APPENDIX

APPENDIX A: FORMS & CHECKLISTS

APPENDIX B: VECTOR SOLUTIONS TRAINING COURSES

OPENING STATEMENT

Section 1: Safety & Health Policy Statement

The safety and health of all Otak's employees is of the utmost importance. Otak will not ask employees to perform work in a manner that does not meet industry standard safety requirements. Otak is committed to incorporating policies and procedures to comply with and equal or exceed applicable Occupational Safety and Health Administration (OSHA) and industry standard workplace safety and health requirements.

Otak has established a Safety Committee consisting of management and office managers, whose responsibility is to support Otak's effort to achieve an accident- and injury-free workplace. Safety committee members are listed on the Safety Site under Otak's Human Resources SharePoint home page and can be emailed at GRPsafety@otak.com.

Otak pledges to do the following:

- Strive to achieve the goal of zero accidents and injuries.
- Provide mechanical and physical safeguards wherever they are necessary.
- Conduct routine safety and health inspections of its offices to find and eliminate unsafe working conditions, control health hazards, and comply with all applicable OSHA safety and health requirements.
- Make training requirements known and accessible to all employees to promote safe work practices and procedures.
- Provide employees with certain personal protective equipment (PPE) and make training known and accessible to use and care for it properly.
- Enforce Otak safety and health rules and require employees to follow the rules as a condition of employment.
- Investigate accidents to determine the cause and work to prevent similar accidents.
- Keep this Safety Manual in compliance with the requirements of the jurisdictions we work in on at least an annual basis.

All employees are responsible for a safe and healthful workplace:

- Business Unit Leaders are accountable for preventing workplace injuries and illness. Business Unit Leaders will consider all employee suggestions for achieving a safer, healthier workplace. Business Unit Leaders also will keep informed about workplace safety and health hazards and be familiar with Otak's safety and health program.
- Project Managers are responsible for making training known and accessible to all workers to promote safe work practices.
- Project Managers must enforce company rules and ensure that Employees follow safe practices during their work.
- Employees are expected to participate in safety and health program activities including, immediately reporting hazards, unsafe work practices, and accidents to Project Managers or a safety committee representative, wearing required PPE, and participating in and supporting safety committee activities.



Escalation through supervisors:

- Many sections of this Safety Manual ask employees to report concerns to their supervisors.
 - If a supervisor does not know what to do with a reported concern, the supervisor should report that concern to their own supervisor, and so forth until the concern is addressed.
 - For employees, if a supervisor does not respond to the employee's reasonable satisfaction or in compliance with this Safety Manual, the employee must bring their concern to Otak Human Resources.

Order of precedence:

- Otak may provide or direct employees to trainings implementing various sections of this Safety Manual. To the extent an assigned training requires anything more stringent than the requirements of this Safety Manual, employees should follow the more stringent requirements.
- If in doubt, employees should contact Otak's Safety Committee.

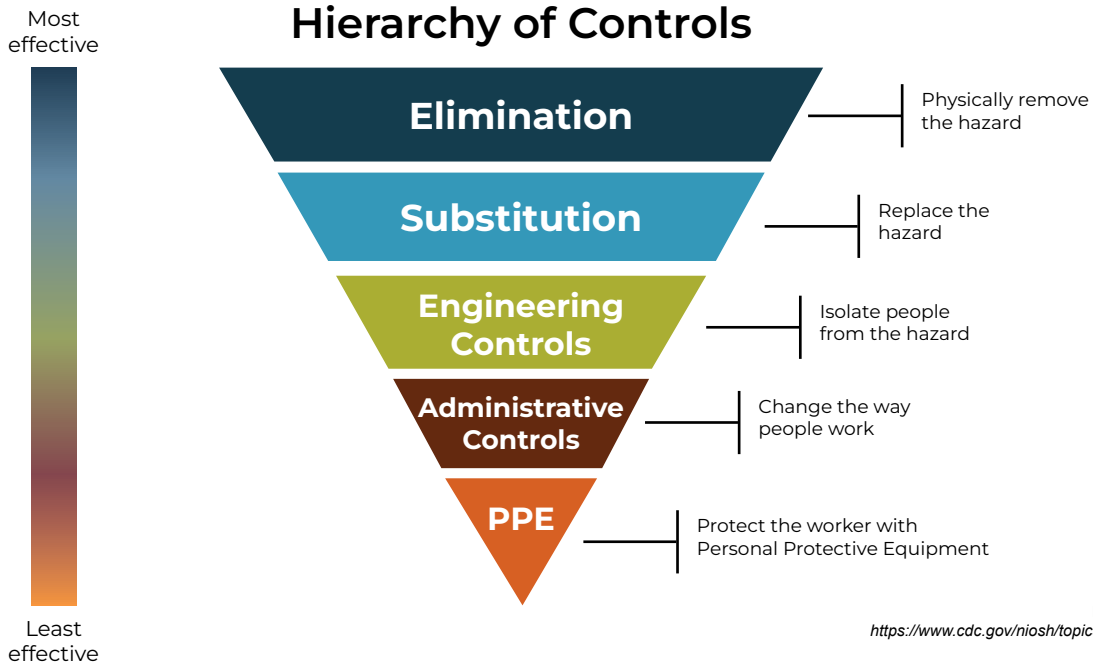
Chief Executive Office Signature: _____

Date: _____

OPERATIONS

Section 2: Job Hazard Analysis

A Job Hazard Analysis (JHA) Form has been developed by Otak to ensure safety hazards encountered in the field are properly controlled and Employees are protected against those hazards. Controlling exposure to occupational hazards is essential for the protection of Employees. Otak has adopted NIOSH's, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, Hierarchy of Controls to adequately protect Employees from hazards.



Responsible	Responsibilities
Safety Committee	The Otak Safety Committee is responsible for keeping the JHA Form and Safety Manual up to date.
Otak Management	<p>The Project Managers are responsible for ensuring JHAs are completed for appropriate projects identified in the Procedures below, prior to the commencement of field operations; recommended safety precautions are in place; and required training is known and accessible to all field personnel. Completed JHAs are to be saved in Otak's system of records (Deltak Vantagepoint).</p> <p>Toolbox Talk is required if you have greater than five staff members working on a job site. The project manager is responsible for reviewing the JHA with the team.</p>

Responsible	Responsibilities
Field Personnel	Otak field personnel are to fully comprehend the hazards and control measures outlined in the project JHA and review Otak's Safety Manual where designated. Deviations to the control measures can only be made after authorization is granted by the Project Manager. Hazards identified in the field which are not covered in the project JHA must be communicated to the Project Manager, who will be responsible for determining the appropriate corrective action(s).

Procedures

At a minimum, a job hazard analysis (JHA), should be conducted on the following types of jobs:

- Jobs with the highest injury or illness rates;
- Jobs with the potential to cause severe or disabling injuries or illness, even if there is no history of previous accidents;
- Jobs in which one simple human error could lead to a severe accident or injury;
- Jobs that are new to your operation or have undergone changes in processes and procedures; and
- Jobs complex enough to require written instructions

The Project Managers shall utilize Otak's JHA Form to complete field site JHAs for the types of jobs listed above. Each JHA is documented to provide information including job titles, tasks being performed, hazards associated with the task(s) and appropriate controls and training required to ensure the task is completed safely. At a minimum, the JHA should be performed as follows:

1. Project scope evaluation. The purpose of this evaluation is to identify potential hazard sources to which a field Employee may be exposed to during the associated field work.
 - a. Basic hazard categories and items to be considered during this evaluation include, but are not limited to the following:
 - i. Chemical exposures
 - ii. Environmental hazards
 - iii. Thermal stressors
 - iv. Homeless encampment/animal encounters
 - v. General material handling
 - b. Within the hazard categories, specific hazard sources should be identified. Typical hazard sources include, but are not limited to the following:
 - i. Motions that may result in the Employee hitting, or being struck by an object
 - ii. Repetitive motion
 - iii. Sharp objects
 - iv. Biological hazards
 - v. Elevated work platforms
 - vi. Environmental conditions
 - vii. Sources of high or low heat
2. Controlling hazards. Once the specific hazards are identified for Employees, it is the responsibility of the Project Manager to evaluate each hazard and determine the appropriate control measure. The hierarchy of controls should be implemented to determine the most appropriate method of control.
 - a. Elimination/Substitution. If the hazard can feasibly be removed from the workplace or can be substituted with a less hazardous operation, this should be considered the first option. Elimination of the hazard assures that the Employees cannot be exposed to the hazard.

- b. Engineering controls: Utilizing design and engineering, the hazard is mitigated and does not present an exposure hazard to the Employee.
 - c. Administrative controls: These methods minimize the identified hazard by implementing specific standard operating procedures in the workplace or out in the field. Worker rotation to prevent repetitive motions is an example of an administrative control.
 - d. Personal Protective Equipment (PPE): The use of PPE is considered the last line of defense when the hazard cannot be effectively eliminated or controlled with engineering and/or administrative methods. Examples of PPE include, but are not limited to the following:
 - i. Hand protection: Gloves (leather, nitrile, latex, etc.)
 - ii. Eye and face protection: Safety glasses with side shields, goggles, and face masks.
 - iii. Hearing protection: Ear plugs, channel caps and earmuffs.
 - iv. Respiratory protection: Half-face/Full-face air purifying respirators (APRs), powered air purifying respirators (PAPRs), self-contained breathing apparatus (SCBA) respirators and dust masks.
 - v. Foot protection: Steel-toed boots and/or metatarsal guard footwear and anti-slip shoes.
 - vi. Body protection: Waders, cut-resistant arm guards, leather chaps and chemical-resistant clothing.
 - vii. Head protection: Hard hats and bump caps.
 - viii. Fall protection: Fall protection harnesses, lanyards, self-retracting lifelines and connector devices.
 - e. If PPE is the selected control method, the Project Manager must properly communicate the selection with the Employees and provide the PPE to the Employees at no cost to them, provide and document the training, and ensure PPE is properly worn in the workplace.
 - i. Training must be made known and accessible to the affected Employees to address proper PPE use, care and maintenance of PPE, as well as the associated limitations of the selected PPE.
 - f. Training: Once the hazards are identified through the upfront project scope evaluation and the hazard is mitigated through one of the aforementioned control measures, all of the affected Employees must be made aware of the appropriate training related to hazard identification.
3. Recordkeeping: The Business Unit Leaders shall retain records of all JHAs completed by the Project Managers for office and field operations. Any new hazards or changes in operation resulting in additional workplace hazards should be documented through a formal JHA and maintained on file.

Section 3: General Field Safety

Purpose & Scope

Otak personnel should be prepared for the hazards they may encounter when performing their work. The purpose of Otak's general safety program is to ensure training and equipment is known and accessible to Employees to conduct their work safely and effectively across a range of scenarios.

Each of the sections below identifies a potential recommendation, hazard, or condition, and the Job Hazard Analysis form provides page references to each of the below sections as necessary.

Responsibilities – Project Managers, Office Managers, and Supervisors

1. Conduct a JHA for every project that meets the following criteria, and once per year for each office:
 - a. Jobs with the potential for injury or illness;
 - b. Jobs in which one simple human error could lead to a severe accident or injury;
 - c. Jobs that are new to your operation or have undergone changes in processes and procedures;

- d. Jobs complex enough to require written instructions; or
 - e. If any doubt, Otak requires a JHA be completed.
2. Provide all personnel with the following information:
 - a. Reporting procedures for fire, medical, or other emergencies.
 - b. Evacuation procedures for an emergency.
 - c. Fire extinguisher locations (if applicable).
 - d. First-aid kit locations and first aid specifics.
 - e. Reporting procedures for incidents and other safety concerns.
 - f. Safe behavior around machinery.
 - g. Required PPE and associated use and care.
 - h. All potential safety hazards field personnel could encounter and the JHA for the project.
 - i. Location and intent of all warning signs and labels used in their work area including Safety Data Sheets (SDS) storage locations (if applicable).
 - j. The results of the JHA and the prescriptive measure identified therein relative to the specific worksite.

Responsibilities – All Otak Employees

1. Employees are required to follow the requirements of this Manual for preventing accidents and injuries.
2. Employees should immediately stop work if they reasonably believe an activity or situation is unsafe or hazardous and immediately notify their supervisor.
3. Employees must immediately report any unsafe work practices or safety hazards they encounter to their supervisor. Employees must also report all accidents/incidents (no matter how slight) to their supervisor.
4. At the end of every workday with any visit away from an Otak office, employees must notify their supervisor that their work is complete and they are headed away from the worksite. Supervisors must contact employees who do not check in at the end of the workday to notify the supervisor that they have safely left their worksite.

Communication Methods – Cell phones, Satellite messengers, and two-way radios

Each JHA will determine the communication methods used on projects. Cell phones, satellite messenger devices, and two-way radios are available for Otak employees to remain in contact while out in the field. Factors that determine the communication methods include work site location, availability of cell coverage, size of the project team as well as other unique hazard conditions that are discussed in further sections of this Safety Manual.

Buddy System

Under OSHA Standard CFR 1910.120(a)(3), a buddy system is a means of pairing a group of employees together so that every worker is being observed by another employee to provide an endangered employee with immediate assistance.

For financial and logistical reasons, Otak cannot mandate the use of the buddy system on every project or in every situation. Each employee's supervisor should make all reasonable attempts to provide for this within

projects. If an Otak employee does not feel comfortable in a work situation without a buddy, the employee should contact their supervisor.



Safety Packs

Otak shall make safety packs available for all employees who conduct field work. For each office staffed with an office manager, the office manager will keep the safety packs with the supplies at that office. For employees who are remote or who do not have access to an Otak office supply closet, these employees should contact the office manager for Otak's headquarters / corporate office to have a pack sent to them. These field safety packs shall include at a minimum, the following items:

1. First-Aid kits
2. 3-in-1 emergency rescue hammer, basic glass breaker and seatbelt cutter
3. 1000 Lumen LED Flashlight
4. AAA Batteries
5. 2 Flares
6. Whistle
7. Moist towelettes
8. Sunscreen
9. Insect repellent
10. Zipper Bags Storage
11. Plastic Tamper Seals
12. Poison Oak & Ivy Outdoor Skin Cleanser
13. Eyewash Solutions
14. Hand Sanitizer
15. Anti-Bacterial Wipes
16. N95 Mask
17. Nitrile Gloves

Otak Employees may opt to add additional items to their field safety packs, such as:

- Mace
- Animal repellent
- Prescription medication
- Multi-tool (e.g., Leatherman®, etc.)

Otak-issued vehicles will also have at least the below additional equipment in a vehicle kit, issued by the office manager for Otak's headquarters / corporate office, as follows:

1. Fire Extinguisher
2. Hard Hat
3. Safety Vest
4. Hand Sanitizer
5. Anti-Bacterial Wipes
6. Nitrile Gloves (5 pair)
7. Masks (10 each)
8. First Aid Kit
9. Flashlight
10. Extra AAA Batteries (3 each)
11. Roadside Emergency Kit
12. Eye Wash
13. TecNu – for Poison Ivy/Oak



Machete Safety

Swinging a Machete

Employees must consider the following when swinging a machete:

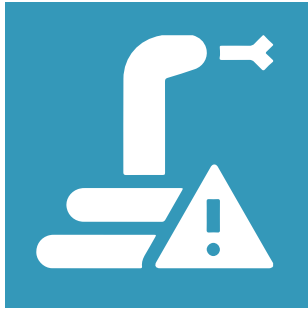
1. Check to make sure the swing area is clear of objects and fellow Employees.
2. Swing down whole arm to increase momentum and utilize gravity.
3. Bring the shoulder down so momentum of the Employee's core whips the arm and tool around to generate adequate thrust.
4. Lead with the elbow.
5. If tired, rest before continuing. Fatigue can lead to injuries. Employees can switch hands when tired, but only if they are adequately coordinated with their non-dominant hand.
6. Do not hack perpendicularly into the object being chopped. Hack at a 45° angle, alternating between chopping in opposite directions to remove slices of material, creating a gap. This should prevent the machete from getting stuck in the material being chopped.

Holding a Machete

Gripping a machete properly is immensely important. Machetes are sharp and a great deal of force is used to operate these tools. Sweat and moisture can affect the Employee's grip on the machete. Therefore, gloves should be worn when using a machete in the field. Additionally, using a machete for long periods of time can cause blisters on the user's hands, making the use of gloves a best practice. The machete's wrist lanyard should be always used.

Carrying a Machete

Always carry a machete in its sheath. If a sheath is not available, cardboard and tape can be used to cover the blade. Employees should always carry the machete in their armpit, with the blade facing backwards. This will help prevent injuries if the Employee falls when carrying the machete.



Animal Hazards

Snakes

Venomous snakes can be found in parts of Oregon, Washington, and Colorado. Field personnel should follow the following safety procedures to reduce the risk of snake-related incidents:

1. Be mindful of hand and foot placement.
2. Appropriate PPE should be worn in environments where snakes might be present, which includes heavy leather gloves and boots that are at least 10" in height.
3. If a snake is seen, step away and leave it alone.
4. If bitten, the Employee should note the color and shape of the snake's head. This information may help with the treatment.
5. Seek medical attention as soon as possible.
6. Apply first aid. If possible, lay the person down so that the bite is below the level of the heart. Cover the bite with a clean and dry dressing.
7. Don not cut the wound or attempt to suck out the venom.

Insects, Spiders and Ticks

Otak Employees who work outdoors are at a greater risk of being bitten or stung by insects, spiders, and ticks. Employees should follow these safety procedures to reduce the risk of an insect-related incident:

1. Wear a hat, long-sleeved shirts, long pants, socks, and high boots to protect against biting and stinging insects. In warm conditions, use light weight clothing to minimize the potential for heat-induced illnesses.
2. Tuck pant legs into socks or boots.
3. Wear light-colored clothes to see ticks more easily.
4. Apply repellents containing Permethrin onto clothing. DO NOT spray directly onto skin. Be sure to read instructions on the proper application or Permethrin prior to use.
5. Use insect repellents that contain DEET or Picaridin on any exposed skin. Be sure to read instructions on the proper use of any repellent.
6. Be extra vigilant at dusk and dawn when mosquitoes are most active and avoid areas of standing water where mosquitoes breed, if possible.
7. Change clothes and shower after work.
8. Employees should examine their body after work for signs of bites or ticks. If bitten, clean the site with soap and water. Remove any attached ticks promptly and carefully with fine-tipped tweezers.
9. Apply a cool compress over the bite site.
10. Treat bites and stings with first aid and for severe cases, seek immediate medical attention.
11. Take aspirin or acetaminophen and antihistamines, at the appropriate dosage as indicated by the manufacturer, to relieve minor signs and symptoms.
12. If an Employee is allergic to any insects, it is their personal responsibility to keep the appropriate medications with them when working in the field. These individuals must alert their coworkers of their allergies so they can assist in the event of an emergency.

Rodents & Wild or Stray Animals

Field personnel have the potential for exposure with vermin and other wild or stray animals. Employees should follow these safety procedures to reduce the risk of an animal-related incident:

1. Avoid contact with wild or stray animals.
2. Do not touch rodents, even if they look dead. If contact cannot be avoided, Employees must wear protective gloves and wash their hands immediately after contact.
3. Avoid animals in nest and dens.
4. Pack repellent for large animals such as bears in the field safety pack if deemed necessary. If Employees chose to bring repellent with them in the field, they are required to read instructions on the proper use of any repellent.
5. Field personnel must report any encounters with large wild or stray animals with their supervisor or Project Manager.
6. Do not wear cologne or perfume, which may attract animals.
7. Employees should keep their skin covered by wearing hats, socks, long-sleeved shirts, long pants, and boots.
8. Pants should be tucked into boots.
9. Work areas should be kept free of garbage and food waste, which may attract pests.
10. Food items should be stored in vehicles.
11. Seek immediate medical attention if bitten or scratched.



Poisonous Plants

Sensitivity to toxins generated by plants varies according to dosage and the ability of the victim to process the toxin, there it is difficult to predict whether a reaction will occur or how severe the reaction will be. Field personnel should be aware that there are many organisms capable of causing serious irritation and allergic reactions, including but not limited to poison oak, poison sumac, devil's club, and stinging nettle.

Supervisors and Project Managers should conduct the following actions to protect field personnel:

Educate field personnel on how to identify poison ivy, oak, sumac, and any other poisonous plants they may encounter.

Educate field personnel on the symptoms associated with exposure to poisonous plants which include swelling, itching, a rash, bumps and blisters.

Field personnel should follow these safety procedures to reduce the risk of a plant-related incident:

1. Wear a hat, long-sleeve shirts, gloves, long pants, socks, and high boots. Pants should be tucked into socks or boots.
2. If possible, avoid contact (direct and indirect) with poison ivy, oak, sumac, and any other poisonous plants.
3. Apply barrier creams, such as lotions containing bentoquatam, to exposed skin.
4. If exposed, immediately rinse skin with rubbing alcohol, poison plant wash, or degreasing soap and lots of water. Scrub under nails with a brush.
5. Reduce itching and blistering with any one or more of these methods; hydrocortisone cream, calamine lotion, wet compress, oatmeal baths, or an antihistamine, at the appropriate dosage as indicated by the manufacturer (note: drowsiness may occur).
6. Employees should seek professional medical attention in severe cases, if the rash is on the face or

- genitals, or if the Employee has a severe allergic reaction.
- 7. Wash any exposed clothing separately in hot water.
- 8. Clean exposed tools after use. Wear disposable gloves during this process.
- 9. Do not burn plants or brush piles that contain any poisonous plants. Inhaling smoke from burning plants can cause severe allergic respiratory problems.

Additionally, many plants are not harmful to touch, but may contain poisonous berries or foliage that could cause serious complications or death if they are ingested (e.g. poison hemlock, water parsnip, etc.) Do not eat any berries, plants or mushrooms found in the field.



Night Operations

Hazards can become more dangerous at night. Therefore, surveying will not be conducted at night, unless reasonable daylight alternatives have been considered and proven to be unfeasible. The following procedures shall be conducted by Otak Project Managers and field personnel to ensure night operations are conducted in a safe manner:

Project Manager Responsibilities

1. Exhaust all daylight field operation options prior to authorizing night work. The buddy system is mandatory for night work.
2. Ensure the field personnel have all the necessary equipment to work safely. Items include, but are not limited to, reflective materials to flag safe road and trails, high visibility clothing, and radio communication. The use of radio communication is mandatory for all night work. Project Managers must ensure field personnel are equipped with radio communication.
3. Nighttime work on traveled transportation routes are considered the last resort. Coordinate with the Department of Transportation or State Police to assist with providing vehicles, safety equipment and personnel to protect Otak Employees when working on traveled transportation routes.
4. Consider giving advance public notice through local news media of Otak's field night work.

Field Personnel Responsibilities

1. Field personnel should ensure that they have been briefed on the scope of the night work.
2. Do not perform any night work before ensuring the necessary safety equipment and PPE is available and on hand.



Homeless Encampments

Homeless encampments pose numerous health and safety risks to Otak's field personnel including bloodborne pathogens and other potentially infectious materials, human waste, needles and other sharps, and aggressive behaviors. Otak has the following responsibilities for working near homeless encampments:

Otak Management Responsibilities

1. Address homeless encampment hazards in the project JHA if it is known that the work will be performed around an encampment.
2. Ensure field personnel receive training and apply the requirements of this section when performing necessary work. Training can be presented by the Project Manager or supervisor to field personnel in

- a "Toolbox Talk" format before the commencement of field activities.
- 3. Take immediate action when necessary to correct any reported deficiencies.

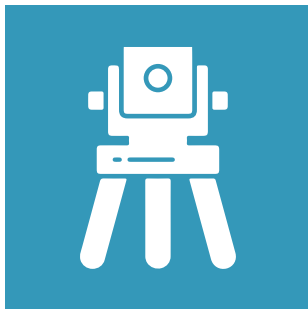
Field Personnel Responsibilities

- 1. Look out for hazards and where their assigned buddy is located. The buddy system is mandatory when performing work around homeless encampments.
- 2. Stop specific work activities if unanticipated hazardous/unsafe conditions are encountered and report those conditions to their Project Manager or supervisor.

Work Activities Near Encampments

Employees who are required to work near homeless encampments, or may encounter associated debris and hazardous items need to do the following:

- 1. Stop work and notify the Project Manager or supervisor. Management will make the decision if the work is to proceed and will contact local law enforcement if occupant relocation is needed.
- 2. Move debris or sharps with hand tools (shovel, rake, broom) from the work area.
- 3. Use standard PPE while performing assigned tasks to minimize exposures. Special PPE requirements shall be listed in the JHA created by Otak Management.
- 4. Employees need to remove themselves from the location if they encounter an aggressive homeless person. Move to an area where there are other people. If the situation escalates, immediately call law enforcement.



Lasers

Field Employees that are required to operate electronic distance measurement (EDM) lasers must be aware of the following precautions:

- 1. Do not look directly into the laser beam at close range.
- 2. Do not look directly into the laser beam at any working distance with binoculars or telescopes. The intensity of the beam is magnified by the square of the power of the optical instrument used.
- 3. Do not expose the eyes to the laser for any prolonged period at any working range.
- 4. Review the operating instructions for the EDM laser to be used and follow the safety guidelines established for that specific piece of equipment.



Mountainous Terrain

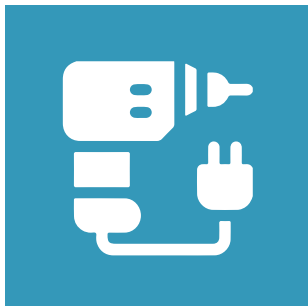
Field personnel shall use company-issued safety lines and harnesses whenever injury could result from work on precipitous slopes or slippery rocks. The use of lifelines is mandatory for rock scaling operations, or in areas where lifelines may be subjected to cutting or abrasion. Ropes used for lifeline applications must have a ¾" diameter, a breaking strength of 5,400 lbs., and be constructed of wire-core manila material. The type of knots used should prevent slippage. Hard hats are always required when using safety lines.

Employees should always test their footing when traversing hazardous areas, to determine a safe route of travel before proceeding.



Fence Crossings

Employees should use gates whenever they are available. Do not attempt to carry equipment or other items when crossing over a fence. Cross barbed wire fences at the center of the span and have a second team member, if present, hold down the wire. If an Otak Employee is working alone and needs to cross a barbed wire fence, they should bring a piece of heavy canvas to place over the top wire before crossing.



Power-Operated Hand Tools

This section pertains to electric, pneumatic, liquid fuel, hydraulic and power attenuated tools. The following safety procedure shall be practiced by all Otak field personnel to reduce the risk of tool-related injuries:

1. Remove damaged tools and label them "Do Not Use" OR tag the tool "Out of Service."
2. Employees must not use powered equipment or tools on which they have not been trained. Tool-specific training shall be administered by Otak Management, following guidance from the manufacturer's safety specifications and/or other technical literature.
3. Operate tools according to the manufactures' instructions.
4. Wear ANSI-approved safety glasses. Face shields may be required to provide additional face protection from flying debris.
5. Wear appropriate work gloves. Do not use a power hand tool while wearing wet gloves.
6. Wear rubber-soled or insulated work boots. Never operate electrical equipment barefooted.
7. Inspect tools before using them.
8. Do not use tools that have handles with burrs or cracks.
9. Do not use cords that have splices, exposed wires, cracked or frayed ends.
10. Turn the tool off before plugging or unplugging it.
11. Do not carry plugged in equipment or tools with a finger on the switch.
12. Do not hoist, lower, or carry tools by the cord.
13. Disconnect the tool from the outlet by pulling on the plug, not the cord.
14. Disconnect tools when not in use, before servicing and/or cleaning them, and when changing accessories.
15. Keep power cords away from the path of saws, mowers, knives and grinders.
16. Do not leave tools that are "On" unattended.
17. Do not operate spark-inducing tools, such as grinders, near containers labeled "Flammable."
18. Do not use extension cords or other three-pronged power cords that have a missing prong.
19. Do not use an adapter, such as a cheater plug, that eliminates the ground.
20. Do not drive over, drag, step on or place objects on a cord.
21. Do not operate a power hand tool or portable appliance while holding a part of the metal casing or while holding the extension cord in hand. Hold all portable power tools by the plastic handgrips or other nonconductive areas designed for gripping purposes.
22. Use ground fault circuit interrupters (GFCIs) when using electrically powered tools/equipment.

23. GFCIs prevent electrical shock by detecting the loss of electricity from a power cord and/or electrical device.
24. Electrical power operated tools shall either be of the approved double-insulated type or grounded.
25. To prevent the tool from becoming accidentally disconnected, pneumatic power tools shall be secured to the hose or whip by some positive means.
26. Safety clips or retainers shall be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.
27. Never point a charged compressed air hose at bystanders or use it for cleaning purposes.
28. Do not exceed the manufacturers' safe operating pressure for hoses, pipes, valves, filters and other fittings.
29. All hoses exceeding ½" inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.
30. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
31. Do not use compressors if their belt guards are missing. Replace the belt guards before using the compressor.
32. Turn the power switch of the tool to "Off" and let it come to a complete stop before leaving it unattended.
33. Stop and turn off all fuel powered tools while being refueled, serviced, or maintained.
34. Transport, handle, and store fuel per manufacturers' direction.
35. Only use fire-resistant approved fluids capable of retaining their operating characteristics at the most extreme temperatures to which they will be exposed in hydraulic powered tools.



Lifting Safety

Field personnel can be exposed to risk factors such as lifting heavy items, bending, and reaching overhead. Additionally, field tasks can involve working in awkward body postures and performing repetitive tasks that can take a toll on workers' bodies. For these reasons, Otak field personnel shall follow the safety procedures listed below to minimize or mitigate the risks of developing musculoskeletal disorders (MSDs):

1. Employees shall plan the move before lifting to ensure they have an unobstructed pathway.
2. Check the load tags if present.
3. Test the load for stability and weight before lifting by pushing the load along its resting surface.
4. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks and carts or get assistance from a co-worker.
5. If assistance is required to perform a lift, Employees shall coordinate and communicate movements with co-workers.
6. Stretch before lifting the load.
7. Field personnel should wear appropriate footwear and proper fitting gloves if needed.
8. Position feet 6 to 12" apart with one foot slightly in front of the other.
9. Face the load.
10. Bend at the knees. Never bend at the waist/back.
11. Keep back straight.
12. Get a firm grip on the object using hands and fingers. Use handles when they are present.
13. Hold the object as close to the body as possible.
14. While keeping the weight of the load in legs, stand to an erect position.
15. Perform lifting movements smoothly and gradually; avoid jerking movements.

16. If an Employee must change direction while lifting or carrying the load, they must pivot their feet and turn their entire body. Do not twist at the waist/back.
17. Hold the load at waist level when moving the load.
18. Slowly squat to set the load down.
19. Set down objects in the same manner as they were picked up, except in reverse.
20. Do not lift an object from the floor to a level above waist level in one motion. Set the load down on a table or bench and then adjust grip before lifting it higher.
21. Employees should never lift anything if their hands are wet or greasy, when feasible.
22. Wear protective gloves when lifting objects that have sharp corners or jagged edges.
23. Employee should never lift anything that is beyond their capabilities.



Working In/Near/On Water

Field personnel should use the buddy system whenever possible when working in water or there is the possibility of falling into water. Whenever Otak Employees are working on a boat, U.S. Coast Guard (USCG) approved Type III or Type V work vests must be worn. These vests must also be worn whenever work is performed in water, regardless of the depth of the water. The vests must be properly sized for the individual and must be always secured. It is the responsibility of the field Employees to inspect all vests and rescue devices for defects prior to, and after each use. Defective safety equipment should not be used and should be repaired and inspected prior to reuse.

Employees must take special care on slippery rocks along shorelines, lakeshores, riverbanks, and creeks. Always look ahead at the ground when walking around the water's edge and avoid stepping on stones that have algal growth, especially those in intertidal areas, which are extremely slippery. Employees should wear boots with traction and waders when wadding into water is necessary.

Otak Management shall ensure a throwable rescue device (e.g. Type IV flotation aid or rope bag) with at least a 90 foot rope line is available for work on boats. These devices would be used if an Employee falls out of the boat.

Otak Project Managers will monitor the weather for intense rain events. All personnel and equipment will be instructed to be removed from low-laying areas that are susceptible to flooding.



Working Near Railroads

Guidelines used when working within an operating right-of-way are for the safety of the surveyor and the railroad. These general guidelines are:

1. Always be alert around railroads. Railroad equipment is not always heard, especially if there is other noise. If a railroad car is coasting or if a train is moving slowly, hearing alone might not provide adequate protection. When necessary, use a spotter.
2. Never crawl under stopped cars and do not cross tracks between closely spaced cars. They could be bumped at any time as the engineer and the brakeman work only one side of the train.
3. Avoid use of the color red. To a trainman, red means immediate danger and "Stop", without exception.

Surveyors must not wear red vests or red clothing when working near rails. Red markers, flagging, or lights will not be used for any reason.

4. Normally, do not use flares on highways at railroad crossings. Only use flares if unmovable, injured persons or disabled vehicles are on the tracks, or if you have found a condition that could derail the train.
5. Do not leave protruding stakes or any holes within ten feet of the centerline of the tracks.
6. Do not park vehicles within ten feet of the tracks. Train crews need this area for their operations.
7. When taping across railroad tracks, support steel tapes above the rails always. The contacting of both rails at once by a steel tape can activate signals. In switching areas, steel tapes can activate signals even when laid parallel to the track. Therefore, only let non-metallic tapes be grounded.
8. Do not leave instruments or other equipment unattended on or near tracks.



TEMPORARY TRAFFIC CONTROL

Temporary traffic control for field work last for one shift or less. Traffic can be controlled by portable warning/control devices, prescribed procedures, and personnel serving in specialty safety functions, such as flaggers and spotters. The Otak Project Manager shall determine the appropriate temporary traffic control measures required. These control measures shall be documented in the project's JHA and communicated to the field personnel. Additional responsibilities are outline in further paragraphs of this section.

The protection of Employees and the public is the primary consideration when temporary traffic control measures are used. That means that occasionally the safest surveys along traveled facilities might be those that only use spotters as temporary control devices.

All reasonable measures shall be used to preclude interference with vehicular movement. Lanes and roadbeds are not to be closed until all other alternatives are exhausted.

Temporary control measures shall be used whenever surveyors work on or alongside traveled roads, including shoulders, where vehicles are likely to travel or park. In addition, control measures shall be used when surveyors must work around moving construction equipment.

Temporary control devices shall not be in place and functional any longer than necessary. Employees should not take breaks while control devices are functioning unless staffing is sufficient to allow staggered individual breaks. Remove unneeded devices during lunch periods. The purpose of the temporary traffic controls is to establish a working area of protection for Employees. There are two basic approaches to working safely along the highway, which are as follows:

1. Work only under conditions that preclude the use of controls.
2. Use all the controls that are designed to provide guidance for motorists and protection for field personnel.

The standards for short term traffic control shall be the "Oregon Temporary Traffic Control Handbook for Operations of Three Days or Less".

Project Manager Responsibilities

1. Before assigning a project team, develop the necessary traffic control plan. This plan should be created in conjunction with the project JHA and should attempt to devise means of conducting the work in a manner that avoids traffic. If traffic cannot be avoided, the Project Manager must try to minimize traffic hazards. Traffic speed, peak traffic hours, sight distances, weather or pavement conditions, and any special conditions, such as school hours must be considered.
2. Ensure surveyors, spotters and flaggers receive the necessary training to perform those functions.

Survey Personnel Responsibilities

Survey personnel must maintain the maximum space possible between moving traffic and the work area. Any survey work that requires working within 6' of traffic must be approved by the Project Manager.

Spotter Responsibilities

A spotter provides immediate warning to co-workers of hazardous vehicles or equipment. They must be used when conditions prevent Employees from adequately looking out for themselves. Spotters must consider the following items when performing this duty:

1. Location of instrument setup (vertical and horizontal alignment).
2. Type of highway, traffic volume, and speeds.
3. Construction activity.
4. Traffic control used.
5. Proximity to actively used railroad tracks.

Spotters must be used when traffic controls are not utilized, in conjunction with the following conditions:

1. Work is to be performed on streets or highways.
2. Along yellow stripes of roads.
3. Within 8' of the centerline of actively used railroad tracks.
4. When there are conflicting and/or multiple vehicular movements, such as intersections and on construction contracts.
5. Whenever personnel surveyors cannot conduct the work and look out for themselves.
6. When conditions are present that restrict the line of sight, such as cut banks with vegetation along horizontal curves in the road.

Flagger Responsibilities

For operations where signs, signals, and barricades do not provide the necessary protection, flaggers and other appropriate supplementary controls are to be used. Flaggers are responsible for the following:

1. Do not perform flagging duties unless properly trained.
2. Always stay vigilant of the environmental surrounding and traffic.
3. Follow the proper signing diagrams.
4. Don high visibility clothing and necessary PPE.
5. Do not wave stop signs.
6. Record vehicle license plates and time of day when motorists refuse to obey instructions.

Traffic Control Equipment, Signs & Placement

The following items are needed for temporary traffic control:

1. Traffic signs
2. Cones

3. Protective vehicles
4. The necessary PPE

Procedures for Surveying without Traffic Control

Even when traffic is light, the closing of a lane or setting out of traffic controls may be the most dangerous aspect of a survey. Under certain conditions, some surveys can be safely made without establishing controls. (If the Project Manager determines that surveys on or alongside a travel way are permitted under these conditions.

Work must be restricted to two-lane conventional roads, the outside lane of a multi-lane Highway, or the innermost lane of each roadbed of a multi-lane highway where the median is wide enough or so designed that unrestricted access to an adequate safe area is afforded.

1. Traffic must be light enough to allow the surveyor to walk safely from the shoulder or median to a specific single observation site on the traveled way, perform the observation, and walk back to the shoulder without interfering with traffic or jeopardizing his/her own safety.
2. A spotter must be used.
3. All survey vehicles must be parked completely off the traveled way and not be in the path of any planned escape route. The planned escape route must be agreed upon by all field personnel prior to commencing survey activities.
4. Each single survey operation must be planned so that the surveyor will spend the least possible time, but no more than 30 seconds, upon or alongside the traveled way.

If all these conditions are met, the survey may be performed without a lane closure. However, the following work procedures must be used:

1. Whenever feasible, work shall proceed against the flow of traffic so workers will face traffic as they walk from station to station.
2. Use one or more spotters. The spotter should not carry a stop slow paddle or try in any way to control traffic without proper signs.
3. Immediately after the required observation at a given station, the surveyor will walk transversely across, or away from, the travel way to a "safe" area that is well away from the edge of the travel way.
4. When in a safe area, all Employees must be continuously alert for possible traffic hazards.

Employee safety must be the only consideration for working without a lane closure. This method may be used with a shoulder closure (including parking lanes) when deemed advisable by the Project Manager.

Amber Warning Lights

These lights are rotating or flashing amber warning lights that should be used in the following situations:

1. The vehicle is parked in the center median without a closure of the passing lane for short periods. In wide medians, they would normally not be used except during reduced visibility.

2. The vehicle is parked on the right shoulder and work is being performed in the immediate vicinity which exposes the worker(s) to traffic.
3. The vehicle is moving against traffic.
4. The vehicle is slowing in preparation to move onto the shoulder, into the median, or into a lane closure; or it is accelerating to move from the shoulder, median, or lane closure into traffic.
5. Highway conditions exist which, in the operator's opinion, warrant the use of amber warning lights to protect workers and/or the public.
6. Surveyors are not supposed to work at night under lane closures. However, in emergencies or peak workloads, amber warning lights should be used at night while driving in a closed lane or while temporarily parked in a closed lane.

Emergency Flashing Lights

These are factory installed flashing lights that are standard equipment on all sedans and pickups and most other highway vehicles. They should be used in the following situations:

1. The vehicle is parked on the right shoulder during periods of restricted visibility, for example, at night or when it is foggy.
2. The vehicle is parked within an established lane closure.
3. The vehicle is moving within an established lane closure.
4. At night, while driving in a closed lane, or while the vehicle is temporarily parked in a closed lane.

Section 4: Personal Protective Equipment (PPE)

Purpose & Scope

Supervisors and Project Managers should work with their team to reduce safety and health hazards first through administrative and engineering controls and safe work practices. If employees are subject to hazards that cannot be eliminated or avoided altogether, employees should use PPE to mitigate risks to their safety.

PPE Requirements – Otak Management & Supervisors

1. Per the OSHA 1910.132-140 Personal Protective Equipment standard, Otak shall provide the necessary PPE to employees at no cost.
2. Otak supervisors will ensure unmitigated hazards on jobsites are addressed in the project JHAs and the appropriate PPE is available to field personnel.
3. Otak will provide training to Employees that are required to use PPE as part of their job duties.



PPE Requirements – Otak Employees

1. Employees should satisfy themselves that they understand the training topics and can use PPE before performing work that requires the use of PPE. Employees should ask their supervisor any questions.
2. Employees are responsible for ensuring the PPE provided to them fit properly, inspected prior to every use and is clean and adequately maintained.
3. Employees must notify their supervisors when PPE needs replacement or if they do not have the necessary PPE to perform their field work safely.

PPE Selection

Each JHA will identify the applicable PPE based on each project’s hazards and potential hazards. The following table suggests appropriate PPE with common workplace hazards. PPE that may be appropriate for a project includes, but is not limited to, the following:

Body Part	Hazard	Appropriate PPE
Eyes & Face	Flying particles or dust	Safety glasses with side shields, goggles, face shields
	Liquid chemicals	Gas-tight goggles, face shields
	UV or IR light	Laser-safety lens with appropriate filters

Body Part	Hazard	Appropriate PPE
Head	Falling or overhead objects	Hard hat, helmet
	Electrical conductors	Class B hard hat or helmet
	Power-driven machinery	Head covering or caps that completely cover hair
Feet	Falling/crushing objects	Steel-toed shoes/boots, metatarsals
	Puncture hazards	Puncture resistant soles
	Electrical conductors	“Electrical-hazard” shoes
	Hot substances	Leggings or leg or foot guards
	Chemicals	Chemical-resistant footwear
Hands	Chemicals	Select according to vendor glove charts, standard industry practices, process knowledge, etc. Consider dexterity requirements and fit.
	Cut and lacerations	
	Punctures	
	Temperature extremes	
Ears	High noise environments	Ear plugs, ear muffs, channel caps

Otak employees are allowed to wear filtering face-piece masks on a voluntary basis, including surgical masks, KN-95 masks, and N-95 masks. Employees cannot wear a higher level of mask without consulting with their supervisor, as the use of these respirators may require a written Respiratory Protection Program and medical evaluations.

Pursuant to OSHA 1910.134(k), Otak employees should be aware that respirators are an effective method of protection against designated hazards when properly selected and worn. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. If you are using an Otak-provided respirator for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator’s limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Section 5: Wildfire Smoke

Purpose & Scope

Otak Employees should be aware of unhealthy or hazardous levels of wildfire smoke. All employees who may be required to perform work activities in untreated air for more than fifteen (15) minutes in a given hour should take the wildfire smoke training provided by Otak through its Learning Management System. This is an annual requirement. If an employee is not automatically assigned this training at onboarding and annually thereafter, the employee should contact their supervisor to confirm they do not need the training. Any employee whose job function changes to require the training must take the training. The training course covers the following areas:

1. Symptoms of wildfire smoke exposure,
2. Potential health effects of wildfire smoke exposure,
3. Employee's rights,
4. How to access air quality data,
5. The importance, limitations, and benefits of using a filtering facepiece respirator,
6. Otak's methods to protect employees from wildfire smoke,
 - a. Identification of job tasks impacted by respirator use,
 - b. Procedures for addressing health systems that necessitate immediate medical attention,
 - c. How to operate and interpret exposure results based on the PM2.5 monitoring device for field personnel using satellite messenger, and
7. Otak's two-way communication system



Section 6: Motor Vehicle Safety

Otak Vehicle Use – Company Business Policy

Otak employees should be aware of the current version of Otak's Vehicle Use – Company Business Policy. Employees should contact their supervisor if they are going to drive an Otak vehicle or their personal vehicle for company business, to ensure compliance with Otak's Policy, which includes steps to take in the event of an accident. Each office may adopt a "protocol" for the use of fleet vehicles at that office, so long as it meets the requirements of Otak's Policy.

Bicycle / E-Bicycle Safety

Otak offices may have bicycles or E-bicycles available for staff to check out, including to lend to guests. Before every ride, employees should perform a check of their equipment, and the equipment they will lend to any guest, to ensure bicycles are in good working condition, including properly inflated and physically sound tires, functional brakes, crank and chain. If an employee is not knowledgeable about the physical operation of the equipment to verify that it is functional, the employee should not use or lend the equipment.

Otak employees must use, and provide for any guest, helmets, headlights, and taillights, or the employee shall not use or lend the bicycle.

Section 7: Confined Space Entry

Entry into confined spaces requires special training and may require permits from the controlling jurisdiction. No Otak employee shall enter a confined space, permit-required or otherwise, before being trained on the specific procedures for the space in full compliance with the safety requirements in accordance with the OSHA Confined Space standard, 1910.146, and any requirements of the client, of the jurisdiction of the entry, and any other laws, regulations, or rules. Any employee faced with an actual or potential confined space entry should contact their supervisor to arrange and complete all required training. Below is a definition of what a confined space would be, so that Otak employees know when to seek further training. If an Otak employee has any question about whether a condition is a confined space, the employee should immediately contact their supervisor to evaluate the situation.

Otak may provide certain confined space training in Otak's Learning Management System. For every condition where it may apply, employees and their supervisors must evaluate whether the training satisfies all requirements and seek such additional training as may be required. Further, each affected team must develop a program that implements the training in accord with the requirements of the jurisdiction controlling the confined space.



A confined space is defined as any location that has limited openings for entry and egress, is not intended for continuous Employee occupancy, and is so enclosed that natural ventilation may not reduce air contaminants to levels below the OSHA Permissible Exposure Limits (PELs). Examples of confined spaces include underground vaults, excavations, manholes, stacks, pipes, storage tanks, trailers, tank cars, pits, sumps, hoppers, and bins. Entry into confined spaces without proper precautions could result in injury, impairment, or death due to:

1. An atmosphere that is flammable or explosive;
2. Lack of sufficient oxygen to support life;
3. Contact with or inhalation of toxic materials; or
4. General safety or work area hazards such a steam or high-pressure materials.

Section 8: Aerial, Scissor Lifts & Fall Protection

All Otak employees that are required to use aerial and scissor lifts in their work, as defined below, shall complete the necessary special training and use all equipment.

Use of aerial lifts, or scissor lifts, requires special training and knowledge of the equipment used. No Otak employee shall use or operate an aerial lift, or scissor lift, before being trained on the specific procedures for the equipment and application in compliance with OSHA requirements (1910.67 *Vehicle-Mounted Elevated and Rotating Work Platform* and 1910.453 *Aerial Devices*). Any employee asked to enter or operate an aerial lift, scissor lift, or similar equipment should contact their supervisor to arrange and complete all required training. Below are definitions of this equipment, so that Otak employees know when to seek further training. If an Otak employee has any question about whether additional training is required, the employee should immediately contact their supervisor to evaluate the situation.



Otak may provide certain training on the use of lifts in Otak's Learning Management System. For every condition where it may apply, employees and their supervisors must evaluate whether the training satisfies all requirements and seek such additional training as may be required.

Definitions

Aerial Lifts: Any powered, mobile, vehicle-mounted device that may elevate, telescopically extend, articulate and may or may not rotate around a substantial axis to raise and support personnel to elevated jobsites.

Scissor Lifts: Any powered, mobile device that has a personnel work platform which is mechanically raised vertically above the carriage by means of control on the work platform.

Section 9: Ladder Safety

Otak employees should only use properly functioning ladders, inspected as described below. If any Otak employee is asked to use a ladder of any kind about which the Otak employee has a concern, the Otak employee should contact their supervisor. If any Otak employee is not familiar with the fundamental concepts of ladder safety, such as those listed below, they should contact their supervisor to arrange training. Employees can be trained to properly use a ladder by reviewing safety measures such as:

1. Maintain three points of contact;
2. Place the ladder on level footing;
3. Always face the ladder;
4. Secure the ladder by locking the metal braces at the center of the ladder;
5. Don't overreach; and
6. Don't walk the ladder

Otak's Safety Committee will confirm that any ladders that are the property of Otak are inspected once every six months or as may be required by a governing authority, using Otak's Portable Ladder Semi-Annual Inspection Checklist. Only ladders meeting ANSI A14.1 - ANSI A14.3 (Safety Codes for Ladders) shall be used by Otak Employees.

Additional safety considerations include, but are not limited to, the following:

1. Do not use ladders in a horizontal position as runways or as scaffolds.
2. Never place a ladder in front of a door unless the door is blocked or guarded.
3. Do not place a ladder against a windowpane or sash.
4. Place the ladder so that both side rails have secure footing.
5. Place the ladder's feet on a level solid base, not on moveable objects.
6. Never lean a ladder against unsecured backing, such as loose boxes or barrels.
7. When using a ladder for access to high places, secure the ladder to prevent it from slipping.
8. Extend the ladder 3' above the top of a landing.
9. Allow only one person at a time on a ladder.
10. Do not overload a ladder.
11. Use ladders of sufficient length and in proper position so that Employees do not have to stretch or reach.
12. Do not use metal ladders around energized electrical circuits or equipment, or in places they may come in contact with electrical circuits.
13. Hold on with both hands when going up or down. If material must be handled, raise or lower it with a rope either before going down or after climbing to the desired level.
14. Carry tools on a tool belt, not in the hand.
15. Always face a ladder when ascending or descending.
16. Never slide down a ladder.
17. Be sure shoes are not greasy, muddy, or slippery before climbing.
18. Do not climb higher than third rung from the top on a straight ladder or second tread from the top on a stepladder.

Section 10: Thermal Stress

Otak Employees should be aware of thermal stress if they are working in hot and cold environments, both indoors and outdoors. All employees who may be required to perform work activities in hot environments for more than fifteen (15) minutes in a given hour should take the thermal stress training provided by Otak through its Learning Management System. This is an annual requirement. If an employee is not automatically assigned this training at onboarding and annually thereafter, the employee should contact their supervisor to confirm they do not need the training. Any employee whose job function changes to require the training must take the training. The training course covers the following areas:

1. Environmental and personal risk factors;
2. Otak's procedures for complying with the OSHA requirements;
3. Water consumption;
4. The concept, importance, and methods of Otak's acclimatization plan;
5. Types of heat illnesses, signs and symptoms, and first aid responses;
6. Reporting signs and symptoms of heat illness; and
7. Non-occupational risk factors.



Section 11: Lone Workers

Some job functions will be performed by lone workers. This program is to encourage awareness and promote safe work procedures for personnel who work alone. Working alone describes situations during the course of employment when an employee is:

1. The only worker at the workplace.
2. Not directly supervised by the employer.
3. Working at a site where assistance is not readily available.
4. In an area where direct contact with a co-worker or supervisor is not available.
5. In a dangerous area (either due to work processes or likelihood of being injured).

The objectives of the Working Alone Program are:

1. Identify hazards to workers working alone and to try to eliminate, minimize or control them.
2. Provide assistance for personnel working alone in the event of an accident or emergency.
3. Identify responsibilities of personnel and supervisors.
4. Recognize who should not work alone.
5. Provide training assistance.

The Working Alone Program applies to Otak personnel whose job duties require them to work alone in any facets of the job.

Responsibilities

Environmental Health & Safety maintains, reviews, and updates the Working Alone Safety Program and provides assistance and recommendations at the request of supervisors.

Responsibilities – All Otak Personnel

1. Recognizing the hazards associated with their jobs and how to minimize them.
2. Reporting hazards to supervisors.
3. Working alone only when necessary, rescheduling assignments (when possible) to keep from working alone.
4. Participate in a check-in system by contacting someone at regular intervals.
5. Carry a personal alarm, cell phone or two-way radio. Ensure sufficient operation and battery life.

Responsibilities – Otak Management

1. Communicating these guidelines to personnel, students and contractors through training programs.
2. Ensuring work performed alone or in isolation has a completed risk assessment that has been shared with the lone worker.
3. Adequate control measures are implemented prior to approval of work.
4. Consulting and training staff, students and visitors that work alone.
5. Provide communication devices such as cell phones, radios, personal safety alarms.
6. Ensure employee health and safety.
7. Ensure lone workers understand the risks associated with their work and that the necessary safety precautions are carried out.
8. Provide guidance in situations of uncertainty.
9. Implement controls to eliminate or control hazards prior to lone work.
10. Supervision of health and safety issues when checking the progress and quality of work; periodic site visits and discussions in which health and safety issues are raised.
11. Provide video surveillance cameras, limit public access, lock all unused doors, coded cards or keys to control access to buildings, alarms, panic buttons, emergency phones, fire alarm or security guards when necessary.

Risk Assessment

Before allowing a worker to work alone, the attached assessment should be completed and the finding recorded. The assessment includes:

1. Identification of hazards within the area.
2. Identification of methods and frequency of communications.
3. Can any temporary access equipment, such as portable ladders or trestles, be safely handled by one

- person?
4. Can all the machinery and goods involved in the workplace be safely handled by one person?
 5. Are there any chemicals or hazardous substances being used that may pose a risk to the worker?
 6. Does the work involve lifting objects too large for one person?
 7. Is more than one person needed to operate essential controls for the safe running of equipment or workplace transport?
 8. Possibility of violence.
 9. Medical fitness of the person working alone – possibility of illness.
 10. Possibility of accidents – consider the activities taking place e.g. accessing ladders or steps.
 11. If the lone worker's first language is not English, are provisions made for clear communications, especially in case of emergency?
 12. Requirements for first aid training.
 13. How can supervision/advice be provided easily?
 14. Methods of raising the alarm in the event of no contact within an agreed time.
 15. Can a person be left alone at their place of work?

The risk assessment should help decide the right level of supervision. Identify the hazards of the work, assess the risks involved, and put measures in place to avoid or control the risks. It is important to talk to personnel and their safety representatives as they are a valuable source of information and advice. This will help to ensure that all relevant hazards have been identified and appropriate controls chosen.

Who shouldn't work alone?

Some job functions have inherent hazards that will require more than one employee at the job site. Some examples of work functions that present hazards that require more than one worker include:

1. Permit-required Confined Spaces
2. High energy materials (radioactive, high temperature)
3. Cryogenic (low temperature) materials/processes
4. Toxic gases, liquids or solids
5. Flammable liquids
6. High pressure or high voltage systems
7. Using fall arrest equipment and scaffolding
8. Equipment or machinery
9. Extreme weather conditions
10. Shop Machinery
11. Restraining or handling animals capable of causing injury

Training:

Training is particularly important where there is limited supervision to control, guide and help in situations of uncertainty. Training may be critical to avoid panic reactions in unusual situations. Lone workers need to be sufficiently experienced and /or trained to understand the risks and how to fully take precautions.

1. Set limits for the worker as to what can and cannot be done while working alone.

2. Ensure personnel are competent to deal with circumstances which are new, unusual or beyond the scope of training, such as when to stop work and seek advice from a supervisor.
3. Those individuals working alone must have the appropriate training for the identified hazards, training can include providing workers with a safety checklist to assist them to identify and anticipate their own hazards.
4. Individuals who perform hazardous work will be provided written safe work procedures by the supervisor.
5. All equipment must be used as intended, according to the manufacturer's specification and as set out in the safe work procedure. All equipment must be maintained in good working order.
6. Appropriate first aid and emergency supplies will be provided by the employer. The employee must know where first aid and emergency supplies are stored and how to use them properly. Otak Personnel shall also be trained in methods of notifying the university or a supervisor when the needs arise.
7. Individuals who may be at risk of violence because they work alone may need training in the use of different communication equipment and/or how to behave when confronted with a situation such as an intruder. The employee will work with the supervisor to identify the potential situation, options for its resolution and the supervisor will arrange for appropriate training, as required.

GENERAL REQUIREMENTS

Section 12: Health Hazard Awareness

Purpose & Scope

Otak Employees are required to be provided all information concerning the dangers of the hazardous chemicals used at Otak offices and at field locations.

Hazard Communication – Provided by Otak

1. Otak's Safety Committee is responsible for establishing and monitoring the Safety Data Sheet (SDS) program. The Committee will make sure procedures are developed to obtain the necessary SDSs and will assist the supervisors with reviewing incoming SDSs for new or significant health and safety information. The supervisors will make certain that any new information is passed on to affected Employees.
2. Otak will ensure that all Employees have access to hazard communication training if applicable to their work as determined by the JHA. Each Employee will receive initial training upon starting work under a JHA that identifies this hazard. The initial training will include the following information:
 - a. An overview of the requirements contained in the OSHA Hazard Communication standard.
 - b. Hazardous chemicals present at the Employee's workplace.
 - c. Physical and health risks of hazardous chemicals.
 - d. The symptoms of overexposure.
 - e. How to determine the presence or release of hazardous chemicals in the Employee's workplace.
 - f. How to reduce or prevent exposure to hazardous chemicals using control procedures, work practices, and PPE.
 - g. Steps Otak has taken to reduce or prevent exposure to hazardous chemicals.
 - h. Procedures to follow if Employees are overexposed to hazardous chemicals.
 - i. How to read labels and review SDSs to obtain hazard information.
 - j. Locations of the SDS files and written hazard communication program.
3. Otak supervisors will identify hazardous non-routine tasks that may require the use of hazardous chemicals not commonly utilized by Otak personnel. Information regarding the hazardous chemical required for the non-routine task, including the protective and safety measures required and the step Otak has taken to reduce the hazards shall be communicated to the Employees by their supervisors.
4. Otak's Safety Committee will maintain a list of hazardous chemicals used at each site. This list will be able to be cross-referenced with the SDS file and container labels. This list will include, at a minimum, the names of the chemicals, manufacturer information and locations where the products are used.
5. If Asbestos, lead, hantavirus, bloodborne pathogens or Silica dust exposure is suspected, Otak Project Managers and/or Supervisors must contact Otak's Safety Committee, prior to entering the subject field site. Otak's Safety Committee will engage the appropriate subject matter expert (SME) to ensure the appropriate hierarchy of controls are considered to mitigate against these hazards.

Hazard Communication – Employee Actions

1. Review hazards information (SDS or labels) prior to using any chemical.
2. Do not bring any new chemical into an Otak office or a field location without discussing the matter with a supervisor beforehand.
3. Employees must make sure they fully comprehend all aspects of their initial training. Areas of deficiencies should be expressed by the Employee to their supervisor.

4. Utilize the protective measures for handling hazardous chemicals for all normal and non-routine activities as prescribed by the supervisors and/or the task JHA.
5. If an employee suspects their actions or the subject field site may result in hazardous exposure to asbestos, lead, hantavirus, blood borne pathogens or Silica dust, Employee must notify their supervisor or Otak's Safety Committee immediately.

Section 13: Emergency Action Plan (EAP)

Purpose & Scope

Each Otak office and any jobsite with 10 or more Otak employees should have an Emergency Action Plan ("EAP"). Although the potential for an emergency to occur is remote, emergency actions may be needed if such critical situations arise. During an emergency, the immediate safety of the employees at the work site is the highest priority. Otak employees must understand how to report and respond to emergencies.

Four major categories of emergencies that could occur during site operations include:

1. Drowning, illness, and physical injuries (including injury-causing chemical exposure)
2. Catastrophic events (fire, explosions, hurricane, tornado, earthquake, or chemical release)
3. Workplace violence, bomb threat, active shooter
4. Safety equipment malfunctions

EAP Strategies – Provided by Otak Management

1. All Otak supervisors and Office Administrators are to develop an EAP, respectively, for each office and all projects that have more than 10 Otak personnel onsite at any given time. The EAP shall address and account for the evaluation elements, how to report emergencies and methods of alerting employees. Office administrators and supervisors will share and review the EAP with all affected personnel.
2. Supervisors are to develop the following list of information as part of the EAP, which can be used for quick reference to assist with reporting emergencies and alerting Employees in the field.
 - a. List of key personnel with contact information.
 - b. List of local emergency responders and agencies.
 - c. List of crew members onsite for the day.
3. Establish and communicate evacuation routes and meeting places with employees prior to the start of the fieldwork.
4. Otak will ensure that first-aid kits are available in all company vehicles. First-aid kits are included in Otak's Safety Packs which are available for employees who drive their personal vehicles to a project site.

EAP Procedures – Employee Actions

1. In the event of a fire or any other emergency, employees are to notify local public resources (911). All employees should notify local public resources immediately if the assessment of the emergency warrants.
2. Employees are to evacuate the worksite if the type or proximity of the emergency poses a direct safety

- risk. Employees are to evacuate following the guidelines outlined in the EAP.
3. Employees should not hesitate to call or alert others if they believe an emergency is occurring. Employees will not be reprimanded for actions taken in good faith if the emergency turns out to be a false alarm. Employees should alert others in the immediate vicinity of the hazard by the agreed upon alarm system or verbal or other means of communication.
 4. If an evacuation is necessary, employees should meet at the location designated in the EAP. The most senior-level employee is responsible for conducting a headcount at the meetup point.
 5. General emergency guidelines for employees are as follows:
 - a. Stay calm and think through actions.
 - b. Know the emergency numbers and where the exits are located.
 - c. Using best instincts, decide on whether it would be better to shelter in place or evacuate.
 - d. In the event of an evacuation, evacuate the job site immediately. Do turn off equipment if timing allows. Do not delay evacuation to get personal belongings.
 - e. Do not hesitate to alert others in the immediate hazard area, either by the agreed upon alarm system(s) or simply by verbal communication.
 - f. All personnel should report for a head count at the designated meeting point.
 - g. Employees should stay together in a group to receive updates on the situation.
 - h. Employees are not to reoccupy a jobsite until the most senior-level employee issues the order.
 6. General medical emergency procedures are as follows:
 - a. Assess the situation and remove all personnel from immediate danger.
 - b. Call 911.
 - c. If an Otak employee is willing and able to assist a person experiencing a medical emergency, here are further steps that may be taken:
 - i. Prevent the victim's condition from worsening.
 - ii. Begin CPR if necessary.
 - iii. Give first aid until help arrives. If the victim is conscious and can respond, a person should ask for permission to render assistance first. If the victim is unconscious, a person can help on the grounds of implied consent under the Good Samaritan Law.
 - iv. Relinquish help to local public resource (qualified person) once they have arrived.
 - d. Notify the employee's supervisor and report the nature and location of the medical emergency.
 7. A review of the EAP by an employee shall occur at a minimum:
 - a. When the Employee is initially assigned to a new site or during the onboarding process related to their primary Otak home office location.
 - b. When the employee's responsibilities under the plan change.
 - c. When the plan itself undergoes any change.

Section 14: Roles & Responsibilities

Otak strives to foster a safe work environment for all its employees, while complying with all applicable local, state, and federal workplace safety and health requirements. Otak shall maintain occupational safety and health standards that equal or exceed standard industry practices. Otak expects and promotes a strong, safety-conscious work environment, where employees and subconsultants are free to raise safety concerns without fear of retaliation. The roles and responsibilities at Otak are as follows:

Executive Management Team

1. Maintain overall accountability, while coordinating actions to monitor and reinforce the safety culture at Otak.
2. Oversee the Safety Committee, whose responsibility will be giving supervisors and office managers guidance in identifying hazards and unsafe work practices, removing obstacles to accident prevention, providing industry standard training, and providing reporting and feedback compliance in to evaluate Otak's effort to achieve an accident-free and injury-free workplace.

Supervisors

1. Build and maintain a strong safety culture.
2. Communicate and teach the importance of safety culture.
3. Develop, participate in, and solicit employee involvement in self-assessments, corrective actions, lessons learned, and training to help identify performance issues and provide input to solutions.

Safety Committee

1. Introduce initiatives that maintain employee interest in health and safety issues.
2. Reinforces to supervisors and employees through awareness and training activities that they are primarily responsible for the prevention of workplace accidents.
3. Provide an opportunity for the free discussion of health and safety problems and possible solutions.
4. Inform and educate all personnel about health and safety issues and standards.
5. Help reduce the risk of workplace injuries and illnesses.
6. Help compliance with federal and state health and safety standards.

All Otak employees

1. Comply with established policies and procedures that implement a safety-conscious work environment.
2. Support the behaviors associated with a safety culture.
3. Adopt and practice the following behaviors:
 - a. Be personally responsible.
 - b. Make decisions that reflect safety first.
 - c. Have a questioning attitude.
 - d. Embrace organizational learning.
 - e. Constantly examine compliance with safety culture.

Section 15: Employee Safety Orientation

Each employee of Otak will be given a safety orientation at onboarding. This is the first step of the overall company safety program. Otak's safety program is intended to meet all regulatory state and federal OSHA requirements. It is a requirement that all new employees be provided this document in its entirety.

The safety program consists of many sections that cover a broad range of topics, including the safety orientation and the Safety Committee requirements. Not all sections are required by OSHA, but nevertheless are required by Otak. All rules and policies listed in the safety program must be followed while working at Otak office or field site.

The most basic safety rules can create a safer workplace and reduce accidents. Listed below are some but not all of the rules that make up our safety program. All safety rules must be adhered to every working moment:

General Safety Rules

1. Alcohol or drug use on the job is always prohibited.
2. Removal and bypassing guards on any machine/equipment is prohibited. If Employees require additional equipment or modifications, they must contact their manager immediately.
3. Seat belts are required for drivers and passengers in company vehicles and in personal vehicles used on business.
4. Employees must advise supervisors of observed hazardous conditions or unsafe practices.
5. Report all injuries to the supervisors, no matter how minor.
6. Supervisor must authorize non-emergency treatment for accidents, prior to treatment.
7. Do not stand on furniture to reach high places.
8. Use the ladder or step stool to retrieve or store items that are located above head height.
9. Do not jump from ladders or step stools.
10. Do not block view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow Employee.
11. Do not throw matches, cigarettes, or other smoking materials into trash baskets.
12. Do not tilt the chair you are sitting in. Keep all chair legs on the floor.

Doors

1. Keep doors in hallways fully open or fully closed.
2. Use the handle when closing doors.

Files

1. Open only one file cabinet drawer at a time.
2. Put heavy files in the bottom drawers of file cabinets.
3. Use the handle when closing drawers and files.

Sharp Objects

1. Store sharp objects, such as pens, pencils, letter openers, and scissors in drawers or with the tips pointing down in a container.
2. Carry pencils, scissors, and other sharp objects with the tips pointing down.

Paper Cutter/Shredder

1. Position hands and fingers on the handle of the paper cutter before pressing down on the blade.
2. Keep the paper cutter handle in the closed or locked position when it is not being used.
3. Do not use paper-cutting devices if the finger guard is missing.
4. Do not place fingers in or near the feed of a paper shredder.

Staplers

1. Point the ejector slot away from body or bystanders when refilling staplers.
2. Keep fingers away from the ejector slot when loading or testing stapling devices.

3. Use a staple remover, not fingers, for removing staples.

Electrical

1. Do not use frayed, cut, or cracked electrical cords.
2. Do not plug multiple electrical cords into a single outlet.
3. Do not use extension or power cords that have the ground prong removed or broken off.
4. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.

Fans

1. Do not use fans that have excessive vibration, frayed cords, or missing guards.
2. Do not place floor type fans in walkways, aisles, or doorways.

Stairs

1. Use the handrails when ascending or descending stairs or ramps.
2. Do not store or leave items on stairways.
3. Do not run up or down stairs or take more than one step at a time.

Aggression Control Procedures

1. If no immediate physical threat is perceived:
 - a. Notify other staff members.
 - b. State clearly who you are, what you can do to help and what your limits are as a staff member.
2. If you perceive the possibility of severe physical injury:
 - a. Assume a non-threatening physical posture and voice tone.
 - b. State in clear concise terms what you want the individual to do.
 - c. State what you can do to help.
 - d. Speak with authority.
 - e. Make direct commands.
3. If you are assaulted:
 - a. Leave the area immediately.
 - b. Report assault to your supervisor.
 - c. Do not return alone. Bring assistance with you.
4. Breaking up an altercation:
 - a. Call for help from staff members or call security.
 - b. Stay out of the immediate area.
 - c. Wait for help from at least one other person. Do not intervene alone.

Ergonomics

1. Take periodic rest breaks from repetitive or prolonged activities by standing up and stretching.
2. Use a chair that is padded, is stable, mobile, swivels and allows operator movement. Adjust your seat height so your knees are about the same level as your hips.
3. Sit straight up in the chair, and if needed, use a footrest that has an adjustable height.
4. Keep wrists and hands in a straight position while keystroking by keeping forearms parallel to the floor

and elbows at your sides. Avoid reaching more than 18" for work items.

Housekeeping

1. Do not place materials such as boxes or trash in walkways and passageways.
2. Mop up water around drinking fountains and drink dispensing machines immediately.
3. Do not store or leave items on stairways.
4. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers, fire alarms or electrical panels.
5. Straighten or remove rugs and mats that do not lie flat on the floor. Ensure non-slip mats are placed correctly and cleaned properly.

Lifting Procedures

1. Plan the move before lifting; ensure an unobstructed pathway is present before lifting.
2. Test the weight of the load before lifting by pushing the load along its resting surface.
3. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks and carts, or get assistance from a co-worker.
4. If assistance is required to perform a lift, coordinate, and communicate your movements with those of your co-worker.
5. Position your feet 6" to 12" apart with one foot slightly in front of the other.
6. Face the load.
7. Bend at the knees, not at the back.
8. Keep back straight.
9. Get a firm grip on the object using hands and fingers. Use handles when they are present.
10. Hold the object as close to the body as possible.
11. While keeping the weight of the load in your legs stand to an erect position.
12. Perform lifting movements smoothly and gradually; do not jerk the load.
13. If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.
14. Set down objects in the same manner as you picked them up, except in reverse.
15. Do not lift an object from the floor to a level above your waist in one motion. Set the load down on a table or bench and then adjust your grip before lifting it higher.
16. Never lift anything if your hands are greasy or wet, when possible.
17. Wear protective gloves when lifting objects that have sharp corners or jagged edges.

Section 16: Training

Even though the Executive Management Team is ultimately accountable for safety, each supervisor is considered the “key” person within the safety program for the employees that they supervise. Each supervisor is the closest to the actual activities being performed and can enforce safety rules and correct unsafe acts and unsafe conditions before and at the time of occurrence.

Manager Training

1. Performing investigations (accidents, incidents and near-misses). The training will cover how to determine basic causes of accidents, how to determine and implement corrective action to prevent recurrence, and how to complete the paperwork associated with the accident investigations. Managers will be formally trained in how to investigate accidents:
 - a. When this program is first put in place.
 - b. When the Employee is first promoted to manager.
 - c. Annually thereafter as a refresher in accident investigation during the Annual October Safety Refreshers.
2. Inspecting work areas. The training will cover what to look for in the inspections, how to complete the paperwork involved, and how to implement corrective action for hazards found. The training should stress the importance of inspections in preventing accidents. Managers will be formally trained in self-inspection procedures:
 - a. When this program is first put in place.
 - b. When the Employee is first promoted to manager.
 - c. Annually thereafter as a refresher in self-inspections during the Annual October Safety Refreshers.
3. Conducting periodic safety activities. Managers will be trained in keeping the idea of a safe workplace in the minds of all Employees. The corporate office will occasionally communicate with the supervisors any new safety activities planned, such as Employee training, Employee incentives, or other special safety activities.
4. Completing JHA. All managers will be trained upon taking the job of manager in the proper techniques to conduct JHAs and the proper manner in reporting and using the information.



Employee Training

Employees must be educated in their responsibilities related to workplace safety. They must see the need and have the desire to implement the procedures set by the Otak executive team and management.

1. Producing a reduction in direct and indirect costs of occupational injuries and illness.
2. Increasing Employee morale and reducing turnover.
3. Providing management with insight into safer procedures and better efficiency through Employee suggestions.

Section 17: Investigations (Accidents & Incidents)

Purpose & Scope

The purpose of this section is to identify the conditions, behaviors, hazards, and root causes of an incident, and identify and implement corrective actions as necessary to prevent similar occurrences. Incident investigations focus on identifying and correcting root causes, not establishing fault.

1. This section applies to all Otak personnel. Incidents subject to investigation by the Otak Safety Committee include, but are not limited to:
2. Injury, illness, or fatality to Employees.
3. Damage to equipment or property owned by Otak staff or contractors.
4. Environmental impacts.
5. Near-misses.
6. Fires or explosions.
7. Uncontrolled release of toxic materials.

Responsibilities – Safety Committee

1. Investigate incidents as necessary.
2. Update and maintain this section.
3. Cooperate with OSHA and other regulatory officers during investigations.
4. Notify OSHA under the following conditions:
 - a. Work-related fatalities within 8 hours.
 - b. Work-related in-patient hospitalizations, amputations, and losses of an eye within 24 hours.

Responsibilities – All Otak Employees

1. Immediately notify the Safety Committee of incidents.
2. Cooperate with the Safety Committee during incident investigations.
3. Provide the Safety Committee with:
 - a. Records and documents pertaining to the investigation.
 - b. Access to spaces and areas necessary for the investigation.
 - c. Access all individuals involved for interview purposes.

Requirements

Safety

1. Before conducting an investigation, Otak business units are responsible for ensuring the incident site is safe and secure for entry and investigation.
2. If an incident site has potential hazards that could harm Otak Employees, contractors or the public, the Safety Committee will collaborate with the necessary parties to evaluate and establish control measures.
3. Wear appropriate PPE at incident sites.

Preserve the Scene

4. Preserve the scene to prevent material evidence from being removed or altered.
5. If the scene could potentially be disturbed before the investigators can arrive, a supervisor or other individuals on-scene should take detailed photographs to document the incident site.

Document the Scene

1. Document the scene by taking photographs and videos from multiple angles of the incident site, equipment, tools, vehicles, PPE, and any other objects involved in the incident.
2. If necessary, sketch the scene using computer programs (e.g., Microsoft PowerPoint) to illustrate the details of the incident.
3. Document the environmental conditions at the time of the incident (e.g., lighting, wind, rain).

Collect Information

Collect incident information through interviews, document reviews, and other means as necessary.

1. Collect detailed written statements from all witnesses.
2. Interviews.
 - a. Interviews provide detailed, useful information about an incident and must be conducted as promptly as possible when the site is both safe and secure.
 - b. An incident investigation always involves interviewing and possibly reinterviewing some of the same or new witnesses as more information becomes available. Carefully question witnesses to solicit as much information as possible related to the incident. Utilize the written witness statements as a guide to expand upon what was witnessed, and to obtain clarification on missing information and inconsistencies.
 - c. Since some questions will need to be designed around the interviewee, each interview will be a unique experience. When interviewing injured workers and witnesses, it is crucial to reduce their possible fear and anxiety, and to develop a good rapport. When conducting interviews, investigators should:
 - i. Conduct the interview in the language of the Employee/ interviewee; use a translator if needed.
 - ii. Clearly state that the purpose of the investigation and interview is fact-finding, not fault-finding.
 - iii. Emphasize that the goal is to learn how to prevent future incidents by discovering the root causes of what occurred.
 - iv. Establish a climate of cooperation and avoid anything that may be perceived as intimidating or in search of someone to blame for the incident.
 - v. Let the Employee know they can have an Employee representative (e.g., labor representative) present, if available/appropriate.
 - vi. Ask individuals to recount their version of what happened.
 - vii. Do not interrupt the interviewee.
 - viii. Take notes and/or record the responses; interviewee must provide proof of permission prior to being video or audio recorded or photographed.
 - ix. Have blank paper and or sketch available for the interviewee to use for reference.
 - x. Ask clarifying questions to fill in missing information.
 - xi. Reflect back to the interviewees the factual information obtained; correct any inconsistencies.
 - xii. Ask the individuals what they think could have prevented the incident, focusing on the conditions and events preceding the incident.
3. Additional resources, to obtain if available.
 - a. Equipment manuals
 - b. Industry guidance documents
 - c. Company policies and records
 - d. Maintenance schedules, records, and logs
 - e. Training records
 - f. Historical meteorological data

- g. Closed-circuit television (CCTV) footage
- h. Audit and follow-up reports
- i. Enforcement policies and records
- j. Previous corrective action recommendations

Determine the Root Cause

Upon completion of information collection, identify the contributing factors and determine the root cause(s), or the underlying reason why the incident occurred. Finding the root cause goes beyond the obvious proximate or immediate factors, as it is a deeper evaluation of the incident. The main goal must always be to understand how and why the existing barriers against the hazards failed or proved insufficient, not to find someone to blame. The root cause will be one of the following categories:

1. Chemical
2. Environmental
3. Equipment
4. Methods/Procedures
5. Human

Identify Corrective Actions

Once the root cause(s) has been identified, corrective actions must be identified that address the root cause(s) of the incident. Partnership with Project Managers and supervisors to develop corrective actions will help ensure feasibility and help establish timelines and target completion dates. Business Unit Leaders shall always support the proposed corrective actions.

Obtain Approval

All incident investigations, which include root cause(s) and corrective action(s), must be approved by Otak's General Council, or designee.

Communication

Upon approval, all incident investigations, which include root cause(s) and corrective action(s), must be communicated to relevant parties, including Superiors and Management, by the investigator(s).

Implement & Follow Up

It is the responsibility of the investigator(s) to follow up on corrective action implementation, target completion dates, and update the investigations as necessary.

Complete

The incident investigation must be approved by Otak's General Council, or designee for closure once all corrective actions have been completed. The investigator(s) must notify all relevant parties, including supervisors and Managers, that the incident investigation is closed and that all corrective actions have been completed.

Recordkeeping

Injury and illness records and incident investigations will be kept on file by Otak's Human Resources department.

Section 18: Return-to-Work

Otak has developed a return-to-work policy. Its purpose is to return workers to employment at the earliest date following any injury or illness. Otak desires to speed recovery from injury or illness and reduce insurance costs. This policy applies to all workers and will followed whenever appropriate.

Otak defines "transitional" work as temporary modified work assignments within the worker's physical abilities, knowledge, and skills.

Where feasible, transitional positions will be made available to injured Employees in order to minimize or eliminate time loss.

For any business reason, at any time, Otak may elect to change the working shift of any Employee based on the business needs of the company.

The physical requirements of the transitional/temporary work will be provided to the attending physician. Transitional/temporary positions are then developed with consideration of the worker's physical abilities, the business needs of Otak, and the availability of transitional work.

In case of an on-the-job accident:

If an Employee has a work-related injury and is missing time from work, they must contact Human Resources.

Section 19: Safety Committee

Per OSHA's general industry requirements, Otak must maintain a safety committee for all locations that have 11 or more Employees.

Safety Committee Functions

1. Establish procedures for review and management response to minutes.
 - a. Submit written recommendations for safety/health improvements/changes and response.
 - b. Evaluate Otak's safety/health policies and procedures.
 - c. Respond in writing to Safety Committee recommendations.
 - d. Review corrective action taken by Management.
2. Committee Meetings and Employee Involvement
 - a. Establish procedures for Employee input, i.e. to receive suggestions, report hazards, and other pertinent safety and health information.
 - b. Include Employee input on addenda for Safety Committee meetings.
 - c. Hold quarterly meetings.
 - d. Keep meeting minutes.
 - e. Develop and make available a written addenda for each meeting.
 - f. Take meeting minutes and distribute to Management and the Safety Committee members.
 - g. Include in the meeting minutes all recommendations.
3. Hazard Assessment and Control

- a. Establish procedures for workplace inspections to identify safety and health hazards.
 - b. Assist Otak in evaluating the Company's safety manual.
 - c. Appoint an inspection team of staff-level Employees and at least one Management-level Employee.
 - d. Conduct workplace inspections at least quarterly.
 - e. Make a written report of hazards discovered during inspections.
 - f. Review corrective measures. Make written recommendation to correct the hazard and submit it to management for timely response.
4. Safety/Health Planning
 - a. Establish procedures to review inspection reports and make appropriate implementation of new safety/health rules and work practices.
 - b. Develop/establish procedures for an annual review of the company safety and health program.
 5. Accountability
 - a. Evaluate the company safety and health accountability program.
 - b. Make recommendations to implement supervisor and Employee accountability for safety and health.
 6. Accident/Incident Investigation
 - a. Establish procedures for reviewing reports completed for all safety incidents, including injury accidents, illnesses, and deaths.
 - b. Review these reports so that recommendations can be made for appropriate corrective action to prevent recurrence.
 7. Safety/Health Training for Committee Members
 - a. Identify and make accessible applicable OSHA standards.
 - b. Provide specific training on the operations Otak performs. Include at a minimum, hazard identification of the workplace and how to perform effective accident incident investigation.
 - c. Identify the location of safety procedures provided with appropriate equipment and inform Employees of their location.
 - d. Recommend training for new Employees and refresher training on company, department and work location safety practices, procedures, and emergency response.
 - e. Management should maintain (and make available to the Safety Committee) records on Employee safety training.

Responsibilities

1. Chairperson
 - a. Prepare agenda for next meeting
 - b. Arrange for meeting place
 - c. Notify members of meeting
 - d. Arrange program
 - e. Set time schedule for meeting
 - f. Arrange all seating for members
 - g. Review previous minutes and material for meeting
 - h. Conduct meeting
2. Secretary
 - a. Record minutes of meeting
 - b. Distribute minutes to committee members
 - c. Post minutes for other Employees
 - d. Report status of recommendations
 - e. Assume chairperson's duties, if required
3. Members

- a. Report unsafe conditions and practices
- b. Attend all safety meetings
- c. Report all accidents or near misses
- d. Review injury accidents, illnesses, and death investigations
- e. Contribute ideas and suggestions for improvement of safety
- f. Work safely
- g. Influence others to work safely
- h. Make or assist in inspections

Meeting Agenda Guide

A successful Safety Committee will have competent leaders and dedicated members. The chairperson will be able to direct group discussion while sticking loosely to the business at hand. A carefully planned agenda will assist the chairperson in doing this. If the agenda can be given to all members in advance, members will arrive at the meeting better prepared. It will also remind them of any responsibilities they have such as reporting on inspection team progress. A standard agenda form can be developed by the committee to meet its specific needs.

Agenda Guidelines

1. The agenda should be typed on Otak company letterhead.
2. Limit it to one page in length and include:
 - a. Title
 - b. Date
 - c. Location
 - d. Starting and ending time
 - e. Topics of discussion
 - f. Minutes of previous meeting
 - g. Chairperson's report
 - h. Reports from subcommittees
 - i. Old business (Items not completed at previous meetings)
 - j. New business
 - k. Educational Section/Special Speakers

The agenda should be distributed to the safety committee members at least three to five days prior to the actual meeting. A copy should be attached to meeting minutes for distribution or posting.

Section 20: Recordkeeping

The purpose of this procedure is to ensure that appropriate records are maintained in accordance with Otak policies and state and federal regulations, as required.

Accident Reports

The OSHA 300 Log of Occupational Injuries and Illnesses shall be completed as accidents occur and maintained for five years at the applicable location with a copy sent to the corporate office (if accident did not involve an Employee working out of the Portland, Oregon office). The summary, a separate form (OSHA Form 300A), shows the totals for the year in each category. At the end of the year, the summary or

an equivalent form will be posted in a visible location so Employees are aware of the injuries and illnesses occurring in their workplace. (Posting required from February 1st to April 30th) All these forms will be kept for five years. Medical records for each Employee shall be preserved and maintained for least the duration of employment, plus 30 years.

The accident investigation forms will be kept by the Human Resources department at the corporate office for at least three years from the just completed year. The annual loss analysis of all losses at each location shall be kept for three years. At the corporate office, an annual loss analysis all be done for all the locations combined and kept on file for three years.

Self-Inspections

All records of inspections shall be kept for three years. Copies of these inspection reports shall be sent to the corporate office after the corrective action has been implemented and documented to remove hazards found.

Safety Meetings

Records of all safety meetings shall be maintained for three years at the location where the meetings are held. Copies of the safety meeting records shall be sent to the corporate office annually showing that the meetings were held.

Training

Records of training of all Employees shall be kept at the location where the training is conducted, a copy put in the Employee's personnel file, supervisors shall send all Employee training records to the corporate. Any certificates obtained as a result of training shall be copied and made a part of the Employee's personnel file. A record of training can be as simple as a sign-in sheet listing what the training was and when it was conducted. These records will be kept for three years.

Program Audits

An annual audit of the Otak Safety Manual will be conducted. This audit, corrective action, and all documentation should be maintained at the corporate office for three years.

Section 21: Safety Inspections

This safety inspection section involves all the following:

1. Business Unit Leaders
2. Project Managers
3. Safety Committees

The type and frequency of the safety inspection is based on the individual Otak facility/operational need.

All departments must be inspected at least quarterly, and the results submitted to Management for review and necessary corrective action. Inspection results are to be discussed at safety meetings to ensure that all departments and Employees are aware of the hazards identified and control measures implemented. Problems found at one location should be communicated to all locations doing the same type of work.

Corporate office Management will be responsible for relaying this information to all locations to ensure that the same type of problems do not cause accidents at other locations. Each location is responsible for maintaining a safe workplace, which includes communicating with other locations about the specific problems they are having and how to eliminate them.

The Workplace Safety Inspection Checklist should be the format used to complete the safety inspection and should be used for all safety inspections for office environments. Different forms may have to be developed for special types of operations, therefore necessitating the use of multiple self-inspection forms. It is the duty of the manager to ensure that the correct form is being used and being done in a timely manner. It is also the duty of the Project Managers to ensure that any deficiencies found are corrected immediately to prevent accidents.

There are three parts to any good workplace safety program that ensures its success: the training of Employees; self-inspections; and investigation of accidents. Otak will emphasize these parts of the safety program and demand that they are done timely, correctly, and thoroughly.

APPENDIX A: FORMS & CHECKLISTS

- 2. Otak's Job Hazard Analysis (JHA) Form
- 6. Otak's Vehicle Use - Company Business Policy
- 9. Otak's Portable Ladder Semi-Annual Inspection Checklist
- 17. Employee's Report of Injury Form
- 17. Supervisor's Accident Investigation Form
- 19. Safety Committee Agenda Form
- 20. OSHA Form 300A Recordkeeping (list)
- 20. OSHA Form 300A Recordkeeping (form)
- 21. Workplace Safety Inspection List

APPENDIX B: VECTOR SOLUTIONS TRAINING COURSES	Section	Vector Solutions #
OSHA Introduction to the Job Hazard Analysis	2	RV ADD
Oregon Occupational Safety and Health: Smart Lift	3	RV ADD
Hand and Power Tools	3	RVCT-313B
Personal Protective Equipment (PPE) OSHA Requirements	4	RV ADD
Otak Wildfire Smoke Training	5	WST-002
Confined Spaces in Construction - Construction Worksite	7	JCOM-00010
SafetyVehicle-Mounted Aerial Device Safety	8	RVCT-1094
Portable Ladder Safety Training	9	RV ADD
Heat Illness Prevention online course	10	HIP-001
Lone Worker	11	JCOM-40060
OSHA Hazards in Communication	12	RV-10562
New Employee Safety Orientation	15	RVI-11332
Safety Management: Incident Investigation	17	RVCT-913
Hazard Identification - The Safety Inspection	21	RV ADD

END OF DOCUMENT

Otak



SAFETY MANUAL