



## **Accident Investigation Policy**

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## Purpose

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The purpose of this program is to establish guidelines for performing investigations of safety accidents and near misses. Owen Construction is committed to providing a safe working environment for all employees, and will investigate every incident or near miss to determine its cause. Once the root cause is established, OWEN Construction will take steps to prevent it from reoccurring. The investigation process detailed in this program is not designed to determine legal liability, compensability, or fraud. Separate investigations must be conducted for those issues, but to identify why the accident or near miss occurred to keep it from happening again.

## Program Responsibilities

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### Management

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Management has the following responsibilities:

1. To establish guidelines for accident investigations at OWEN Construction.
2. To ensure that employees are provided with the proper tools and resources to perform accident investigations.
3. To identify company employees who have the knowledge and competence to conduct accident investigations.
4. To provide training to employees who have been selected as part of OWEN Construction accident investigation team.
5. To review and respond promptly to the recommendations that result from accident investigations.
6. To ensure OWEN Construction is operating in accordance with this policy by performing periodic reviews and audits.
7. To review this safety policy for effectiveness periodically and when program deficiencies are discovered.

### Supervisors

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Supervisors have the following responsibilities:

1. To ensure that all accidents and near misses are reported.
2. To perform accident investigations in accordance with this policy.
3. To provide communication between employees and management on safety issues.

### Employees

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Employees have the following responsibilities:

1. To report all safety incidents and near misses immediately to a supervisor.
2. To cooperate with company accident investigations.

## Definitions

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For the purposes of this program, the following definitions apply:

### Accident

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Any event that causes any of the following:

1. Death, or critical condition that may result in death.
2. Any injury that requires treatment beyond basic first aid.
3. A release or exposure to a toxic or hazardous substance.
4. Any structural failure, such as the collapse of a building, bridge, tower or crane.
5. An uncontrolled explosion or fire.
6. An uncontrolled event that results in damage to property.

### Near Miss

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An accident, as defined by this program, that was narrowly avoided due to circumstances or timing. All near misses will be investigated as if they were actual accidents. To find the cause and prevent it from happening again.

## Accident Investigation Kit

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OWEN Construction will provide a set of materials for investigating safety accidents. This kit will include at a minimum:

1. Company accident investigation forms.
2. Pens.
3. Notepads.
4. Flashlight.
5. Tape measure.
6. Camera (use a cell phone).
7. Safety barricade tape.

The accident investigation kit will be stored in the Main office

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## **Designating Accident Investigators**

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OWEN Construction Management will designate a person to lead the accident investigation who:

1. Has been trained to conduct accident investigations.
2. Has the requisite technical knowledge for the type of accident being investigated.  
(For example, electrical safety accidents should be investigated by someone who has a strong technical knowledge of electrical systems.)
3. Is a senior employee or supervisor.
4. Has the ability to communicate details clearly and concisely.
5. Was not involved in any way with the accident that occurred.

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## **Training Requirements**

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Employees who perform accident investigations must have specific training on conducting investigations and the accident investigation policies of OWEN Construction. The training must include:

1. The purpose of safety accident investigation.
2. Definitions of accidents and near misses.
3. Understanding of the difference between major and minor incidents.
4. The required qualifications for investigators.
5. The required contents of an accident investigation kit.
6. The five-step process for investigating accidents.
7. The proper techniques for interviewing witnesses.
8. How to make recommendations for corrective action.
9. The proper method for recording investigations and submitting them to management.

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## **Training Frequency**

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Employees must be trained before conducting their first investigation and:

1. When changes in OWEN Construction investigation policy are made.
2. When an employee demonstrates a lack of understanding of the policy.
3. Whenever additional and refresher training is determined necessary.
4. At least every year.

## **Accident Investigation Procedure**

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1. Make sure the area is free of hazards before entering.
2. Make sure that employees involved in the accident are in a safe condition and have received any needed emergency services.
3. Define the scope of the investigation, when the incident began and ended.
4. Select appropriate investigators and assign specific tasks to each.
5. Perform a preliminary briefing to the investigating team. Each brief must include:
  - a. A description of the accident.
  - b. A description of normal operating procedures.
  - c. A description of the site layout.
  - d. A list of witness.
  - e. An account of events preceding the accident.
6. Collect physical evidence, take photos and prepare sketches.
7. Interview each victim and witness privately and separately.
8. Make the following determinations:
  - a. What was not normal before the accident?
  - b. Where the abnormality occurred.
  - c. When the abnormality was first noted.
  - d. How the abnormality occurred.
  - e. The qualifications of the people involved.
9. Make the following determinations:
  - a. Why the accident occurred.
  - b. The likely accident sequence of events.

- c. Any alternative sequence of events.
- 10. Determine the most likely sequence of events and the probable causes of the incident.
- 11. Conduct a post-investigation briefing with management.
- 12. Prepare a report of the incident, and submit it to management and the safety committee.

### **Program Evaluation**

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OWEN Construction accident investigation program will be reviewed on a yearly basis. OWEN Construction management will evaluate the effectiveness of the program, and correct any deficiencies discovered. Employees will have an opportunity to review and comment on this program. Program reviews will also be conducted whenever any incident causes OWEN Construction management to question the effectiveness of the program.



## **Bloodborne pathogens exposure control plan**

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OWEN Construction Inc. has made a commitment to the prevention of incidents or accidents that can result in employee injury or illness. This exposure control plan is an element of our safety and health program and complies with OR-OSHA's *Bloodborne Pathogens, 1910.1030*, requirements.

**OWEN Construction Inc.** has the authority and responsibility to ensure that all elements of the exposure plan are in place. Employees can read the plan any time and it will be located in the main office in the safety binder.

### **Purpose**

The purpose of this exposure plan is to eliminate or minimize employee occupational exposure to blood or other potentially infectious materials (OPIM), identify employees occupationally exposed to blood or OPIM in the performance of their regular job duties, provide information and training to employees exposed to blood and OPIM, and comply with OR-OSHA *Bloodborne Pathogen standard, 1910.1030*.

### **Exposure determination**

Employees subject to the OR-OSHA bloodborne pathogens standard are those who are reasonably expected to have skin, eye, mucous membrane, or parenteral contact with blood and/or any body fluids that are contaminated with blood resulting from the performance of their assigned job duties. Although Good Samaritan acts are not covered under the bloodborne pathogen standard, it is our policy to provide evaluation and treatment of employees who sustain exposure to blood or OPIM who assist an injured employee but are not required to.

# Bloodborne pathogens exposure control plan

**Table 1** lists job classifications and associated tasks identifying employees at risk of exposure to blood or other potentially infectious materials. Exposure determinations are made without regard to use of PPE.

| Table 1: Employees at risk |                                             |
|----------------------------|---------------------------------------------|
| Job classification         | Task or exposure                            |
| Any Employee               | Working on a site where a worker is injured |
| First aid responder        | Helping an injured worker                   |
|                            |                                             |
|                            |                                             |
|                            |                                             |
|                            |                                             |

## Compliance methods

### Universal precautions

Universal precautions is an approach to infection control in which all human blood and other potentially infectious materials are handled as if they were known to be infectious for bloodborne pathogens. Consider difficult- or impossible-to-identify body fluids as potentially infectious.

### Engineering and work practices controls

Use the following controls to eliminate or minimize occupational exposure.

#### *Sharp containers*

Place contaminated needles, blood-contaminated test tubes, and other sharp objects in a sharps container. Replace containers routinely and do not allow overfilling. Place reusable sharps in metal trays for decontamination. When moving containers of contaminated sharps from the area of use, close containers to prevent spillage or protrusion of contents.

#### *Safe medical devices*

Purchase and use safe medical devices whenever possible. Evaluate devices annually to determine appropriateness of the device and to investigate new and safer options.

#### *Work practices*

Clean up blood spills or body fluids as soon as possible. Use disposable absorptive materials, such as paper towels or gauze pads, to soak up the fluids. Clean the area with chemical germicides or a 1:10 solution of liquid bleach. Place absorptive towels, pads, and other material used to mop up spills in plastic bags or designated, labeled containers and treat as biohazardous waste.

Employees must wash their hands upon removal of gloves and other protective gear. In an emergency, if soap and water are not immediately available, use disposable antiseptic towelettes

# **Bloodborne pathogens exposure control plan**

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or germicidal gels to clean hands after removing gloves. Employees must wash their hands with soap and water as soon as possible.

Employees may not eat, drink, smoke, apply cosmetics or lip balm, or handle contact lenses where occupational exposure can occur. Do not store food or beverages in refrigerators and freezers and other sites used to store blood or other biohazardous material.

## **Personal protective equipment (PPE)**

PPE is provided at no cost to employees. Employees receive training in its use, maintenance, and disposal annually.

### *Storage area*

First aid cabinet is the storage area for bloodborne protective gear. Supplies include disposable gloves; face shields; impervious disposable coveralls and booties; resuscitation devices; large, heavy-duty plastic bags and ties; sharps containers; biohazard signs or labels; absorbent pressure dressings for wounds; antiseptic towelettes; disposable absorptive material for cleaning up spilled blood; rubber gloves; and bleach solutions or germicides.

## **PPE use and disposal**

Employees engaging in activities that may involve direct contact with blood, OPIM, contaminated objects, mucous membranes, or open wounds must wear disposable gloves made of vinyl or latex. Use reusable rubber gloves (inspected and free of apparent defects) or disposable gloves to clean up spill areas. Disinfect reusable gloves with diluted liquid bleach or germicides after use.

Wear face shields or goggles with disposable surgical masks whenever splashes, spray, or spatters of blood droplets or OPIM may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

Use laboratory coats or scrubs to prevent contamination of employee street clothing. Wear impermeable disposable coveralls and booties whenever contamination of skin not protected by gloves or face shields is anticipated, such as a traumatic injury with significant blood loss.

Use resuscitation devices, which minimize contact with mucous membranes, to perform cardiopulmonary resuscitation.

Remove used personal protective equipment at the exposure location or as soon as feasible to avoid contamination of other work areas. Place in a biohazard container or in a plastic bag with a biohazard label. PPE must not be taken from the work site.

## **Housekeeping**

Employees who have received bloodborne pathogen training and who have been included under the exposure plan can clean up spills and work surfaces such as bench tops and blood processing areas.

# **Bloodborne pathogens exposure control plan**

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Clean and decontaminate all equipment and working surfaces after completion of procedures in which blood or body fluids contaminated with blood are handled and immediately, or as soon as feasible, when surfaces are overtly contaminated with blood and at the end of the work shift if the surface may have been contaminated since the last cleaning. Inspect all biohazardous waste receptacles and decontaminate weekly or immediately upon visible contamination.

Use chemical germicides or solutions of 5.25 percent sodium hypochlorite (liquid bleach) diluted 1:10 with water for cleaning. Chemical germicides approved for use as hospital disinfectants and effective against HIV can also be used.

Broken glassware or glass items must not be picked up directly with the hands. Use a mechanical means, such as a brush and dust pan, tongs, or forceps. Handle as a biohazardous waste. Decontaminate equipment used to pick up glassware with a 1:10 bleach solution or an approved germicide.

## **Contaminated laundry**

Handle non-disposable linen, such as construction coats or pants, or any other clothing visibly contaminated with blood using disposable gloves. Minimize the time spent handling laundry. Bag laundry as close as possible to the location where it was used. Place laundry in a bag that prevents soak-through and/or leakage of fluids to the exterior; place a biohazard label on the bag.

Employees cannot wash contaminated items at home.

## **Regulated waste**

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

## **Labels and signs**

Affix warning labels to laundry bags, containers of regulated waste, refrigerator units and containers used to store, transport, or ship blood or OPIM. Red bags or red containers can be used instead of labels.

## **Hepatitis B vaccine**

The hepatitis B vaccine is offered, at no cost, to exposed employees within 10 working days of initial assignment. Employees who have potential exposure to bloodborne pathogens but decline to take the vaccination must sign a declination statement. Employees who initially decline can still receive the vaccination should they decide at a later date to accept. Previously vaccinated new hires must provide a vaccination record that includes the vaccination dates. Employees must sign a declination statement if the vaccination record is not available and revaccination is declined or not appropriate.

# **Bloodborne pathogens exposure control plan**

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OWEN Construction Inc. management will schedule vaccinations at the salem clinic and will keep employees' vaccination records in their medical files.

## **Exposure incident and post-exposure evaluation and follow-up**

An exposure incident to bloodborne pathogens is defined as an eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties. It is OWEN Construction Inc's policy to include Good Samaritan acts performed by an employee at the work site.

Whenever an exposure occurs, wash the contaminated skin immediately with soap and water. Immediately flush contaminated eyes or mucous membranes with copious amounts of water. Medically evaluate exposed employees as soon as possible after the exposure incident in order that post-exposure prophylaxis, if recommended, can be initiated promptly.

The medical evaluation is to include the route(s) of exposure and the exposure incident circumstances; identification and documentation of the source individual, where feasible; exposed employee blood collection and testing of blood for HBV and HIV serological status; post-exposure prophylaxis, where indicated; counseling; and evaluation of reported illnesses. Source test results and identity will be disclosed to the exposed employee according to applicable laws and regulations concerning disclosure and confidentiality.

Salem Clinic provides hepatitis B vaccinations and medical evaluations and post-exposure follow-up after an exposure incident and has a copy of the ***Bloodborne Pathogen standard, 1910.1030.***

## **Information provided to the health care professional**

OWEN Construction Inc's management is responsible for ensuring that the health care professional who evaluated the employee after an exposure incident receives the following information:

- A description of the employee's duties as they relate to the exposure incident
- Documentation of the route(s) and circumstances of the exposure
- The results of the source individual's blood testing, if available
- All medical records relevant to the appropriate treatment of the employee, including vaccination status

## **Health care professional's written opinion**

OWEN Construction Inc. management will provide the employee with a copy of the health care professional's written opinion within 15 days after completion of the evaluation.

# **Bloodborne pathogens exposure control plan**

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Limit the health care professional's written opinion(s) for the hepatitis B vaccination to whether the vaccination is indicated and whether the employee has received the vaccination.

Limit the health care professional's written opinion for the post-exposure evaluation to the following information:

- Whether the employee was informed of the evaluation results
- Whether the employee was told about any medical conditions resulting from exposure to blood or OPIM that may require further evaluation or treatment.

## **Training and training records**

All employees who have occupational exposure to bloodborne pathogens receive training on the epidemiology, symptoms, and mode of transmission of bloodborne pathogen diseases. In addition, the training program will include the following topics:

- An explanation of activities and tasks that may involve exposure to blood and OPIM
- How appropriate engineering controls, work practices, and PPE will prevent or reduce exposure
- The basis for the selection of PPE; the types, use, location, removal, handling, decontamination, and disposal procedures
- Hepatitis B vaccine information including that the vaccine is provided at no cost, the benefits of being vaccinated and methods of administration
- Employer responsibilities for post-exposure evaluation and medical follow-up; how and who to contact should an exposure incident occur
- An explanation of the signs and hazard labels
- How to review or obtain a copy of the exposure control plan and the standard

OWEN Construction Inc. trains employees prior to initial assignment to tasks in which occupational exposure may occur. Training is repeated every 12 months or sooner when there are new tasks or changes to the existing procedures/tasks. Training records are maintained at the main office for three years and include the date(s) and content of the training program, name and qualifications of the trainer(s), and names and job titles of the attendees.

## **Record keeping**

Medical records for employees with occupational exposure to bloodborne pathogens include the employee's name, social security number, and hepatitis B vaccination status, including dates of hepatitis B vaccination and any medical records relative to the employee's ability to receive the vaccination. Medical records are kept for the duration of employment plus 30 years in

## **Bloodborne pathogens exposure control plan**

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accordance with OR-OSHA's *Access to Employee Exposure and Medical Records standard, 1910.1020*. Medical records are confidential. Employees must sign a written consent for disclosure.

In the event of an exposure incident, the following records will be kept in the employee's medical file:

- The results of any examination, medical testing, and follow-up procedures.
- A copy of the treating physician's written opinion to the employer.
- A copy of all information provided by the employer to the health care professional regarding the exposure incident.

Record every needlestick on the OSHA 300 Log and/or the Sharps Injury Log. Record all other exposure incidents that result in medical treatment, (e.g., gamma globulin, hepatitis B immune globulin, hepatitis B vaccine, etc.) on the OSHA 300 log. Retain these records for five years.

### **Plan evaluation and review**

Review the exposure control plan and update it at least annually. OWEN Construction Inc. management or designated company is responsible for the annual review. Sign and date this exposure plan when the review has taken place.

Signature: \_\_\_\_\_

Date:



## **Confined Space Policy**

### **General Industry**

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## Purpose

OWEN Construction Inc. is committed to a safe, healthful workplace for its employees. The purpose of this written program is to help employee's identify permit required spaces at job site's and ensure that only authorized employees will enter, perform work in, and exit the spaces safely. OWEN Construction Inc. will inform all affected employees when there are changes to this written program.

OWEN Construction Inc. will do the following to ensure the health and safety of those who work in and around permit spaces:

- Evaluate each confined space to determine if it has the characteristics of a permit space.
- Inform all employees of the location and the hazards in each permit space.
- Prevent unauthorized persons from entering a permit space.
- Train authorized entrants, attendants, and entry supervisors so that they have the skills necessary to fulfill their duties.
- Provide all necessary equipment for permit-space work at no cost to employees, maintain the equipment, and ensure that employees are trained on and use the equipment properly.
- Inform contractors about the permit-space program and coordinate entry operations.
- Annually review the Confined Spaces program to ensure it is properly protecting employees.

## Program Responsibilities

OWEN Construction Inc. designates the following persons to manage the permit-space program:

| Person's name or position                             | Person's responsibility                                                                                                                                                                                       |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Keith Owen                                            | <b>Managing the overall program.</b> Overall implementation and maintenance of the written program, including employee certification or training that satisfies the requirements of 1910.146.                 |
| Keith Owen or Johnny Sladick                          | <b>Identifying permit-space locations.</b> Location and identification of all permit spaces at this workplace.                                                                                                |
| KARM Safety Solutions is currently providing training | <b>Training affected employees.</b> Ensure that authorized entrants, attendants, entry supervisors, and on-site emergency responders are properly trained and have periodic refresher training.               |
| Keith Owen or Johnny Sladick                          | <b>Planning for emergencies.</b> Ensure that emergency responders are informed of all permit-required confined spaces at the workplace and have access to the spaces for drills and other training exercises. |
| Keith Owen or Johnny Sladick                          | <b>Equipment.</b> Ensure that all equipment for authorized attendants and entrants is properly maintained and is available when needed.                                                                       |

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## **Identified Confined and Permit Required Confined Spaces**

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OWEN Construction Inc. does work as a contracted company. The owners or contractor who hire's OWEN Construction Inc. to preform work has the responsibility of identifying space's that are confined space and permit required confined space.

## The Entry Permit

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Before employees enter a permit space, the entry supervisor must complete and sign an entry permit that verifies the permit space is safe for employees to enter. The entry permit must be posted at the permit-space entry and include the following information:

1. Location of the permit space.
2. Purpose of entry.
3. Date and authorized duration of the permit.
4. Authorized entrants' names.
5. Authorized attendants' names.
6. Entry supervisor's name and signature.
7. Hazards in the space.
8. How hazards will be controlled so that the space is safe to enter.
9. Acceptable entry conditions.
10. Testing data and testers' initials that certify the space is safe to enter.
11. Names of emergency responders and instructions for contacting them.
12. Communication procedures used by entrants and attendants.
13. A list of all equipment, including PPE, necessary to ensure entrants' safety.
14. A description of any other permits, such as hot work permits, that entrants need to work in the space.
15. Any other information required for employee safety.

### Entry Permit Procedure

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1. Obtain an entry permit before employees enter the space.
2. Accomplish all pre-permit activities required for entering the space.
3. Complete all items on the entry permit.
4. Sign the permit. If any item on the permit is checked as "NO" (meaning not yet completed or available), the permit may not be signed.
5. Attach a copy of the entry permit outside the confined space. Keep it there until the entry operations are finished and the entry supervisor cancels it.

## **Supervisor, Attendant Entrant Duties and Responsibilities**

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Authorized entrants, attendants, and entry supervisors have the following duties and responsibilities:

| <b>Duty/responsibility</b>                                                                                              | <b>Entrant</b> | <b>Attendant</b> | <b>Supervisor</b> |
|-------------------------------------------------------------------------------------------------------------------------|----------------|------------------|-------------------|
| Keep unauthorized entrants away from the space.                                                                         |                | X                | X                 |
| Remove unauthorized individuals who enter or who attempt to enter the permit space.                                     |                |                  | X                 |
| Communicate with entrants, monitor their status, and tell them when to evacuate.                                        |                | X                |                   |
| Inform the entrants and the entry supervisor if unauthorized persons enter the permit space.                            |                | X                |                   |
| Communicate with the attendant regularly.                                                                               | X              |                  |                   |
| Remain outside the space during entry operations until relieved by another attendant.                                   |                | X                |                   |
| Know the number and identity of authorized entrants.                                                                    |                | X                |                   |
| Use all equipment properly.                                                                                             | X              | X                |                   |
| Determine that acceptable entry conditions are maintained.                                                              |                |                  | X                 |
| Exit from the permit space immediately upon an order to evacuate, an alarm warning, or a sign of a hazardous condition. | X              |                  |                   |
| Know permit-space hazards, including the mode, symptoms, and consequences of exposure.                                  | X              | X                | X                 |
| Notify the attendant of any signs or symptoms of exposure to a hazardous condition                                      | X              |                  |                   |
| Terminate the entry and cancel the permit when entry operations are finished or if a prohibited condition arises.       |                |                  | X                 |
| Verify that entry conditions are acceptable before signing the permit and allowing entry.                               |                |                  | X                 |
| Perform non-entry rescues if necessary.                                                                                 |                | X                |                   |
| Verify that rescue services are available and the means for summoning them are effective.                               |                |                  | X                 |
| Summon emergency responders when entrants need their services.                                                          |                | X                |                   |

## **Permit Space Entry Procedures**

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### **Contractor Only Entry**

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If contract workers only will enter the permit space Site Supervisor will inform the contractor about all hazards in the space, the permit-space program, and company safety rules. Keith Owen or Johnny Sladick will review and discuss each contracted job with the contractor before the work begins. The contractor will inform Keith Owen or Johnny Sladick about the permit-space program that the contractor will follow. If the contractor's

permit-space program is less effective than OWEN Construction Inc.'s program, the contractor will follow OWEN Construction Inc.'s program.

### Employer and Contractor Work

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On site Supervisor will coordinate entry operations with the contractor so that contract workers and company employees work together, following this company's permit space-program.

### Company Employees Entry

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#### Pre-Entry Procedure

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1. Obtain an entry permit.
2. Any conditions that would make it unsafe to remove the space cover must be eliminated.
3. Specify the acceptable conditions for entering the permit space. Entry into a permit space is prohibited until the atmosphere has been tested from outside the space. Tests must include those for oxygen content, flammability, and toxic gasses, in that order. The percentage of oxygen for entry must not be less than 19.5 percent nor more than 23.5 percent at normal atmospheric pressure. If the percentage of oxygen falls below 19.5 percent, entrants must use appropriate air-supplying respirators. The atmosphere in the space must be checked at a frequency designated by the entry permit.
4. Conduct a confined space entry briefing with all affected employees.
5. Provide authorized entrants with the opportunity to observe any monitoring or testing of the space.
6. Isolate the permit space from sources of hazardous energy. Disconnect hazardous equipment from the sources of hazardous energy, whenever possible. All chemical and steam pipes, treating agents, and lines must be blanked or removed. Electrical isolation must be accomplished by locking out circuit breakers or disconnects in the off position with a key-type lock. The key must remain with the authorized entrant. If more than one person enters the space, a group lockout procedure is allowed.
7. Purge, inert, flush, or ventilate the space to eliminate or control atmospheric hazards. Initial testing of the atmosphere must be performed from outside the space. Continuous ventilation of fresh, clean air must be maintained in the space and directed at the employee work area.
8. Ensure that entrants have the equipment they need to do their jobs (including rescue equipment) and they know how to use the equipment.
9. Set up barriers, as necessary, to protect entrants from external hazards and prevent objects from falling in or unauthorized entry.

10. Post a warning at the entrance to the space that says: WARNING, PERMIT-REQUIRED CONFINED SPACE. ENTRY BY PERMIT ONLY. If special equipment is required for entry, the appropriate information may be included on the signs; for example: RESPIRATOR REQUIRED FOR ENTRY or LIFELINE REQUIRED FOR ENTRY.
11. Station a dedicated confined space attendant.
12. Verify that conditions in the space are safe for the duration of entry.
13. Complete and sign the entry permit to authorize entry into the permit space.
14. Display the completed entry permit at the time of entry so that authorized entrants can confirm that pre-entry preparations have been completed.

#### Conditions During Entry

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1. All electrical equipment in the space must be properly grounded.
2. The space must have adequate lighting.
3. All unauthorized persons must be kept away from the space.
4. Communications between the entrants and the attendant must be verified and tested.
5. The space must be clear of atmospheric hazards for the entire entry.
6. Welding and burning equipment other than torches and hoses must not be taken into the space. Gas cylinders or welding machines must remain outside the space. They must be blocked if they are on wheels. All welding equipment must have quick shut-offs that are under control of the attendant. When gas welding or cutting is suspended, the gas supply must be cut off at the cylinder and the torch removed from the confined space.
7. The attendant must know how to shut down welding and burning equipment when entrants perform hot work.
8. If entrants need a ladder to enter a permit space, the ladder must be secure and must not be removed when they are in the space.
9. Atmospheric testing must continue at the frequency designated by the entry permit.
10. Entrants must leave the permit space immediately when any of the following occurs:
  1. An order to evacuate is given by the attendant or entry supervisor.
  2. An entrant recognizes any warning sign or symptom of exposure.
  3. An evacuation alarm is activated.

4. An entrant is unable to communicate with the attendant.
  5. An atmospheric or other hazard develops.
11. An attendant immediately outside the space must monitor authorized entrants. The attendant must have a means of continuous communication with entrants.
  12. If entrants are injured or become ill, the attendant must initiate the confined space rescue plan.

#### Procedure Following Entry

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1. The entry supervisor will terminate entry and cancel the entry permit when entry operations have been completed or an emergency occurs in or near the space.
2. OWEN Construction Inc. will retain each canceled entry permit for at least one year to evaluate the permit-space program.

#### Alternate Permit Space Entry Procedures

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If the space has only an actual or potential atmospheric hazard that can be controlled by forced-air ventilation, employees can enter the space if they follow this procedure:

1. Ensure that the space has only an actual or potential atmospheric hazard that can be controlled by forced-air ventilation sufficient to keep the space safe before employees enter and during the time they are in the space.
2. Have monitoring and inspection data that show forced-air ventilation will keep the space safe during entry. Entrants must have the opportunity to review the data before they enter the space. Entry into a permit space is prohibited until the atmosphere has been tested from outside the space. Monitoring and inspection data must include *oxygen content, flammability, and toxic gasses*, in that order. The percentage of oxygen for entry must not be less than 19.5 percent nor more than 23.5 percent at normal atmospheric pressure.
3. Ensure that any condition in the space that makes it unsafe to remove the entrance cover is eliminated before the cover is removed.
4. Set up barriers, if necessary, to protect entrants from external hazards.
5. Verify in writing that the space is safe for entry and that the above pre-entry measures have been taken. The written verification must show the date, the location of the space, and the signature of the person who determined the space was safe for entry. The verification must be completed before entry and must be made available to each authorized entrant.
6. Periodically test the atmosphere in the space to ensure it is not hazardous. If entrants encounter a hazardous atmosphere, they must exit immediately.

## Reclassifying a Permit Space to a Non-Permit Space

---

A permit space can be reclassified as a non-permit space if no actual or potential atmospheric hazards exist and all other hazards in the space can be eliminated before employees enter. Employees can enter the space if they follow this procedure:

1. Ensure that the space has no actual or potential atmospheric hazards. The space cannot be reclassified if actual or potential atmospheric hazards exist.
2. Ensure that all other hazards in the space are eliminated before employees enter.
3. Follow the written program and obtain an entry permit if it is necessary to enter the space to eliminate hazards or to test the space for atmospheric hazards.
4. Document how all hazards in the space were eliminated.
5. Certify that the space is hazard free with the name and signature of the person who made the determination.

## Employee Training Requirements

---

OWEN Construction Inc. will train all authorized entrants, attendants, and entry supervisors so that they have the understanding, knowledge, and skills necessary to perform their jobs. Training will be provided in the following manner:

- Before the employee is a first assigned duty.
- Before there is a change in the employee's assigned duties.
- When there is a change in permit-space operations that presents a hazard for which the employee has not been trained.
- When the employee does not follow entry procedures.
- Refreshers as required.

The Training Program will consist of two components:

1. OWEN Construction Inc. Confined Space safety training course.
2. Each affected employee will be trained by the Supervisor for each Permit Required Confined Space entry. This training will include:
  - a. The nature of the hazards
  - b. Procedures to take when exposed to hazards.
  - c. Use of emergency and rescue equipment.

OWEN Construction Inc. will certify that employees have been trained by recording each employee's name, the type of training, the trainer's signature, and the training date. The record will be available for inspection by employees and their authorized representatives.

## Rescue and Emergency Services

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### Non-Entry Rescue

---

Non-entry rescue is the preferred method for rescuing an entrant from a permit space. A retrieval system must be available to retrieve entrants from vertical permit spaces that are more than five feet deep. The retrieval system must be used to rescue an entrant unless the equipment would increase the entrant's risk of injury. Each authorized entrant must use a properly attached chest harness or full-body harness. Entrants may use wristlets if chest or full-body harnesses put them at a greater risk of injury in an emergency. The other end of the retrieval line must be attached to a retrieval system outside the permit space so that rescue can begin immediately.

If an entrant could be exposed to a substance for which a material safety data sheet is required to be kept, that MSDS must be made available to the medical facility that treats the entrant.

### On-site Rescue and Emergency Services

---

Employees will not enter a permit space to respond to an emergency unless they have been properly trained and equipped. If a permit-space rescue is necessary, the attendant is responsible for the following:

- Summoning emergency responders.
- Attempting to rescue entrants using only non-entry rescue equipment.
- Monitoring the emergency and informing responders about the number of victims, their condition, and the hazards in the space.

Only properly equipped, trained employees are permitted to enter a permit space during an emergency. Each employee who will enter a permit space in an emergency must do the following:

- Complete training required to establish proficiency as an authorized entrant.
- Complete training in basic first-aid and CPR.
- Complete training in use of personal protective and rescue equipment.
- Use appropriate personal protective and rescue equipment.
- Perform assigned rescue duties during a permit-space emergency.
- Practice a permit-space rescue at least once every 12 months.

### Off-Site Rescue and Emergency Services

---

OWEN Construction Inc. has evaluated the ability of off-site emergency service providers to rescue entrants from the permit spaces identified at this site and has arranged with the following off-site responder to provide rescue and emergency services: Before job starts we will select a provider and add it to our site plan.

| Off-site emergency service provider information |
|-------------------------------------------------|
| Name of provider:                               |
| Address of provider:                            |
| Phone number:                                   |

|                                          |
|------------------------------------------|
| Approximate response time:      Minutes: |
|------------------------------------------|

OWEN Construction Inc. has informed the selected service provider of hazards that may exist in the permit spaces identified at this site and has given the provider access to the spaces to develop appropriate rescue plans and to practice rescues.

### **Annual Review of Program**

---

Within one year of an entry operation, OWEN Construction Inc. must review canceled entry permits to identify program deficiencies. The review must be sooner if there is reason to believe that the program does not adequately protect employees. Actions to correct deficiencies must be documented and affected employees must be retrained. OWEN Construction Inc. will also perform an annual review of this policy to ensure its effectiveness.



# Early Return to Work Policy

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## RETURN TO WORK POLICY STATEMENT FOR WORKERS WITH TEMPORARY OR PERMANENT DISABILITIES:

The objective of OWEN Construction Inc. is to return disabled workers to employment at the earliest date possible after an injury. We desire to minimize serious disability and reduce insurance costs. This policy applies to all workers and will be followed whenever appropriate.

The return to work program will consist of a Team effort by supervisors, the worker's attending physician, OWEN Construction Inc. Management, and our insurance carrier. All Team members will take an active role in returning disabled workers to productive work status.

OWEN Construction Inc. defines "light duty" work as temporary work assignments within the disabled worker's physical abilities, knowledge and skills. "Light duty" positions are developed following disability utilizing the known physical abilities/restrictions obtained from the worker's attending physician. The physical requirements of light duty work are shared with the worker's attending physician to obtain concurrence that the proposed light duty is within the physical capacity of the disabled worker. Light duty positions are developed in consideration of the worker's physical capacities, the business need of OWEN Construction Inc. and our ability to offer alternate light duty work.

Attached are the procedures the team will follow in the return to work program. Signature sheets will be obtained and maintained by personnel indicating an understanding of the policy/procedures.

## **RETURN TO WORK PROCEDURES:**

### **A. Treatment of injury or illness:**

All injuries must be reported to the supervisor immediately.

All disabled workers who need immediate medical treatment during their work shift will be transported to medical facility by ambulance or by their supervisor/designee depending on the injury.

### **B. Obtaining “Light Duty” Physical Capacities:**

If possible, before the worker leaves the company for medical treatment, the worker will be given a Return to Work Recommendations form to take to the attending physician for completion. If not feasible, the supervisor/designee will obtain the name of the attending physician from the disabled worker and forward a Return to Work Recommendation form to the attending physician within one working day of the worker leaving work due to disability.

The supervisor/designee should include a “light duty” job analysis of proposed modified work, if available. A regular job analysis form should also be prepared and sent to the attending physician.

If the attending physician has questions concerning the “light duty: OWEN Construction Inc. Management will contact the attending physician to discuss.

Disabled workers will also inform the attending physician that “light duty” is available depending on the injury and provide the forms at the time of treatment.

### **C. Disabled Worker Release and Reporting:**

Workers treated within their work shift and released to return to work should report immediately to their supervisor/designee with the full release from the attending physician.

If released after the end of the shift, the worker should report to their supervisor/designee at the beginning of the next shift with release.

In all cases, where the attending physician releases the worker to return to work, workers are required to contact OWEN Construction Inc. Management within 24 hours of disability with a medical release from the attending physician.

Failure to report to work or contact the worker's supervisor/designee following disability and medical treatment within 24 hours may result in disciplinary action.

2

D. Disabled Workers Unable to Return to Work and Reporting:

If a worker cannot report to the next shift, the OWEN Construction Inc. management or Supervisor will contact the disabled worker and agree upon "regular" time and day of the week to maintain regular contact.

The disabled worker will be informed to notify the supervisor/designee within 24 hours of all changes in medical condition.

All workers must provide current and changes of address and phone number to supervisor/designee.

Failure to provide changes in medical condition or address/phone number could lead to disciplinary action.

E. Release to "Light Duty" and Job Offer Letter:

Upon receipt of a signed "light duty" or regular Job Analysis from an attending physician, a written Job Offer letter will be prepared and mailed by both regular and Certified mail to the disabled worker's last known address to assign the light duty position.

The letter will include a copy of the signed Job Analysis/Work Release from the attending physician and explain: report date; wage; hours; report time; duration of light duty work assignment; supervisor to report to and phone and location of the light duty assignment.

The worker will be asked to sign the bottom of the job offer letter indicating acceptance or refusal of the offered work assignment.

F. Worker refusal of an attending physician approved "light duty" job offer, by either verbal refusal or failure to report to work, will result in Worker's Compensation Insurance reduction or termination of total or partial wage replacement (ORS 656).

Refusal may also result in loss of re-employment and reinstatement of rights and could affect possible future vocational eligibility (ORS 656).

J. Work Hours/Shifts/Locations:

OWEN Construction Inc. will determine appropriate work hours, shifts and locations of all light duty work assignments. We reserve the right to determine the availability and appropriateness of all temporary “light duty” work assignments and job offers.

3

K. Duration of Light Duty Work Assignments:

Continuation of temporary “light duty” work assignments for disabled workers will be reviewed regularly. OWEN Construction Inc. reserves the right to determine the duration of “light duty” work assignments.

It is the responsibility of all Team members to immediately notify other Team members if there is a problem with a “light duty” work assignment. The supervisor will monitor the worker’s recovery progress through regular contact or meetings to reassess when and how often duties may be changed. Upon receipt of increases in physical capacities, the supervisor will assess the ability to adjust work assignments. All changes in the work assignment will be made after receiving concurrence from the worker’s attending physician in writing. Notification of changes will be in writing with copies provided to the worker, attending physician and the insurer from the supervisor.

If a worker has a permanent disability, which restricts the worker’s ability to return to regular work, the “light duty” program may end.

OWEN Construction Inc. will determine whether a continuing modified position exists and whether the worker will or will not be offered this or any other position as their new regular work assignment.

OWEN Construction Inc. will determine whether the worker’s physical restrictions require substantial modification and whether such modifications are possible.

To the extent possible, OWEN Construction Inc. will consider worksite modification to allow worker to continue in employment.

L. ***Worker Acknowledgment***

The return to work policy/procedure has been explained to me.

I have read and fully understand all the procedures and responsibilities.

I agree to observe and follow these procedures.

I understand my failure to complete my responsibilities may result in disciplinary action up to and including termination.

Failure to follow these procedures may also affect my right to re-employment, reinstatement or possible future vocational assistance following disability.

I have received a copy of this policy and procedure.

---

Employee's Signature

---

Date





# Emergency Action Plan Policy

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## Purpose

OWEN Construction Inc. is committed to protecting employees in the event of an emergency. The purpose of this program is to establish policies for action plans to guide employees in the event of an emergency. These plans will be developed, approved by management, and communicated to all employees.

## **Program Responsibilities**

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### **Management**

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Management has the following responsibilities:

1. To identify potential work related emergencies.
2. To develop policies and procedures to protect employees in the event of an emergency.
3. To establish clearly marked exit routes.
4. To establish a system for warning employees of emergencies.
5. To provide all required equipment for emergency action response.
6. To identify employees to coordinate and assist with emergency action response.
7. To establish procedures for personnel who must operate critical equipment before they evacuate.
8. To provide training to employees for emergency action.

### **Program Administrator**

---

The company Emergency Action Program administrator is Keith Owen, or designated person. The responsibilities of the program administrator include:

1. To identify potential workplace emergencies.
2. To coordinate the development of emergency action plans.
3. To coordinate or conduct training with employees.
4. To coordinate emergency drills.
5. To assist in the evaluation of this written program.
6. To ensure this program is compliant with OSHA and other regulations.

### **Emergency Action Supervisor**

---

Emergency Action Supervisor coordinate the emergency action and response for specific emergencies. The responsibilities of the Emergency Action Supervisors include:

1. Coordinate with the Program Administrator to develop emergency action plans.
2. Supervise the response in the event of an emergency.
3. Receive muster reports from emergency coordinators.
4. Receive reports on critical operations from emergency coordinators.
5. Coordinate with emergency services during emergencies.
6. Work with emergency services to determine when it is safe to return to work.
7. Other duties as required by the Emergency Action Plan.

## Supervisors

---

Supervisors have the following responsibilities:

1. To monitor employees to ensure that they are working in accordance with the requirements of this program.
2. To ensure that employees have received appropriate training.
3. To ensure that emergency exit routes are clearly marked in their work area.
4. To identify employees to assist in emergency response.

## Employees

---

Employees have the following responsibilities:

1. To complete the required safety training before performing work.
2. To follow the directions of emergency response coordinators.
3. To provide feedback to supervisors on emergency response issues.

## Emergency Action Plan Requirements

---

OWEN Construction Inc. has developed an emergency action plans for all potential emergencies. These action plans will include:

1. Procedure for reporting the emergency.
2. Procedures for emergency evacuation, including type of evacuation and exit route assignments.
3. Procedures to be followed by all employees who remain to operate critical plant operations before they evacuate.
4. Procedures to account for all employees after evacuation.
5. Procedures to be followed by employees performing rescue or medical duties.
6. The name or job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.

## Identification of Potential Emergencies

---

The Program Administrator will create a list of possible emergencies for this facility. This will include potential fires, weather related events, and medical emergencies. The program administrator will also review the company job hazard analyses, to identify potential process related emergencies, which may include hazardous material spills.

## Required Emergency Action Plans

---

| Emergency Situation | Location              | Affected Employees |
|---------------------|-----------------------|--------------------|
| Fire                | Office, shop, jobsite | All                |
| Flooding            | Office, shop, jobsite |                    |

| <b>Emergency Situation</b> | <b>Location</b>       | <b>Affected Employees</b> |
|----------------------------|-----------------------|---------------------------|
| Medical Emergency          | Office, shop, jobsite |                           |
| Hazardous Material Fire    | Office, shop, jobsite |                           |
| Earthquake                 | Office, shop, jobsite |                           |
| Violent Acts               | Office, shop, jobsite |                           |
| Bomb Threat                | Office, shop, jobsite |                           |
|                            |                       |                           |
|                            |                       |                           |

### **Emergency Contact Procedures**

---

OWEN Construction Inc. will rely on local emergency services for response to most emergency situations. These services will be briefed on the potential company emergencies. The Program Administrator will coordinate visits with emergency service providers to ensure they are familiar with the facility and the company emergency action plans when applicable.

| <b>On-Site Company Emergency Services</b> |                       |                     |                 |
|-------------------------------------------|-----------------------|---------------------|-----------------|
| <b>Service</b>                            | <b>Contact Person</b> | <b>Phone Number</b> | <b>Location</b> |
|                                           |                       |                     |                 |
|                                           |                       |                     |                 |
|                                           |                       |                     |                 |
| <b>Local Emergency Services</b>           |                       |                     |                 |
| <b>Service</b>                            | <b>Contact Person</b> | <b>Phone Number</b> | <b>Location</b> |
| <b>Fire</b>                               | <b>Dispatcher</b>     | <b>911</b>          |                 |
| <b>Medical<br/>Emergency</b>              | <b>Dispatcher</b>     | <b>911</b>          |                 |
| <b>Violent Acts</b>                       | <b>Dispatcher</b>     | <b>911</b>          |                 |
|                                           |                       |                     |                 |

### **Warning and Evacuation Alarms**

---

OWEN Construction Inc. will communicate emergencies and evacuation warnings with the use of distinct sounding alarm devices. These alarms will be specific to the type of emergency, so that employees can determine what actions are required. Some alarms will be triggered facility wide, while others may be for specific parts of the workplace. In areas with high noise, a visual alarm may accompany the audible alarm.

### Emergency Alarm Requirements

The Program Administrator will make sure that the alarm used meets the following requirements.

1. The alarm system must be loud enough to be heard above ambient noise. For areas with high noise, visual alarms may be used.
2. The alarm system must provide adequate warning of the type of emergency, and should allow enough reaction time for employees to evacuate or execute the necessary emergency actions.
3. The alarm must be distinct and recognizable as to the type of emergency that is occurring.
4. The procedure for sounding the alarm must be included in the emergency action plan.
5. Employees will be trained on the proper method for initiating alarms.
6. Emergency contact information will be posted on employee notice boards, and anywhere the telephone is used a method for sounding an alarm.
7. The company will keep spare alarm components to ensure that alarms are not disabled due to broken or faulty parts.
8. The alarm systems must be restored to normal operating conditions as soon as possible after each alarm.
9. Non-supervised employee alarms must be tested every two months. If the alarm has multiple actuation devices, a different one must be actuated for each test, so that no individual device is used for each test.

### Types of Alarms

The following types of alarms have been established at our office and job sites.

| Alarm                   | Alarm Type          | Length             | Notes |
|-------------------------|---------------------|--------------------|-------|
| Fire                    | Voice /Jobsite horn | Loud/ jobsite Long |       |
| Flooding                | Voice/Job site Horn | Loud/Jobsite Long  |       |
| Medical Emergency       | Voice/ Jobsite Horn | Loud/Jobsite Long  |       |
| Hazardous Material Fire | Voice/ Jobsite Horn | Loud/Jobsite Long  |       |
| Earth Quake             | Voice/ Jobsite Horn | Loud/ Jobsite Long |       |
| Violent Acts            | Voice/ Jobsite Horn | Loud/ Jobsite Long |       |
|                         |                     |                    |       |

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|  |  |  |  |

## **Assembly Areas and Shelters**

---

### **Emergency Evacuation Assembly Areas**

---

OWEN Construction Inc. has designate assembly areas for evacuation. These assembly areas must meet the following requirements:

1. The assembly area must be large enough to accommodate the amount of people assigned to it.
2. The assembly area must be far enough away from the facility so that employees are not put at risk from the hazards of the facility.
3. The assembly area must be a short walking distance from the facility, and must be able to accommodate disabled and special needs employees.
4. The assembly area must be free of hazards, including traffic hazards.
5. Their assembly area must have a means to communicate with the EAP coordinator.

## **Employee Training**

---

OWEN Construction Inc. will establish a training program for all employees. Basic training will be provided to regular employees who have no extra responsibilities other than following the directions of the emergency plan. Supervisors and emergency coordinators will receive advanced training on the procedures for emergency evacuation.

### **General Employee Training Requirements**

---

General employees training must include:

1. The requirements of the OSHA Emergency Action standard 1910.38.
2. The types of potential emergencies at this facility.
3. The requirements of the applicable emergency action plan.
4. The emergency action assistants for their area.
5. Any special actions or procedures that must occur before evacuating.

### **Emergency Action Supervisors**

---

Emergency Action Supervisors training must include:

1. The requirements of the OSHA Emergency Action standard 1910.38.
2. The types of potential emergencies at this facility.
3. The requirements of the applicable emergency action plan.
4. The emergency action supervisors for their area.

5. Any special actions or procedures that must occur before evacuating.
6. The method for ensuring that all employees have evacuated.
7. Method for determining if situation is all clear.
8. Any information that must be provided to emergency services.

### Training Frequency

Employees will be trained on the emergency action plans at least annually and:

1. Whenever a plan is developed.
2. Whenever an employee is assigned to a new position that has different emergency action plans.
3. Whenever an emergency action plan is changed.
4. When employees responsibilities under the plan change.

### Emergency Drills

OWEN Construction Inc. will conduct periodic drills to ensure employees are familiar with the procedures and that the emergency action plans are sufficient. These drills will be scheduled by the program coordinator. Emergencies with higher likelihoods will be prioritized and practiced more frequently.

| <b>Emergency Action Plan</b> | <b>Frequency of Drills</b> |
|------------------------------|----------------------------|
| Fire                         | Annually                   |
| Flooding                     | Annually                   |
| Medical emergency            | Annually                   |
| Hazardous Material Fire      | Annually                   |
| Earthquake                   | Annually                   |
| Violent Acts                 | Annually                   |
|                              |                            |
|                              |                            |
|                              |                            |

### Locations of Emergency Action Plans

The current authorized version of the company emergency action plans will be kept with this program. The emergency action plans will also be posted in public areas for employees to review. The action plans that are relevant to the work area will be posted in designated areas.

| Work Area | Posting Location | Emergency Action Plans |
|-----------|------------------|------------------------|
| Office    |                  |                        |
| Shop      |                  |                        |
|           |                  |                        |
|           |                  |                        |
|           |                  |                        |
|           |                  |                        |
|           |                  |                        |
|           |                  |                        |

### **Program Evaluation**

The Program Administrator will review this program at least annually. The program will also be reviewed if conditions change, or if there is any sign that this program is ineffective. All employees who are affected by changes in the emergency action plan will be trained on the changes.



# EMPLOYEE EXPOSURE AND MEDICAL RECORDS

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## ***ACCESS TO EMPLOYEE EXPOSURE AND MEDICAL RECORDS***

---

“Access,” means the right and opportunity to examine and copy. Access to employee medical and exposure records will be provided in a reasonable manner and place. If access cannot be provided within 15 days after the employee’s request, OWEN Construction Inc. will state the reason for the delay and the earliest date that the records will be made available. Responses to initial requests, and new information that has been added to an initial request, will be provided without cost to the employee or representative. OWEN Construction Inc. shall provide employees copies of the requested records while it retains the originals. In addition, medical and exposure records will be made available to OSHA representatives for examination and/or provided copies as needed. Request shall be made through OWEN Construction Inc. management, should be in writing and requires a notarized employee written approval before records can be released to an employee representative.

### ***EXPOSURE RECORDS***

---

Upon request, OWEN Construction Inc. will provide the employee, or employee’s designated representative access to employee exposure records.

### ***MEDICAL RECORDS***

---

OWEN Construction Inc. will provide employees and their designated representative’s access to medical records relevant to the employee’s employment. Access to the medical records of another employee may be provided only with the specific written consent of that employee. The OSHA standard provides a suitable sample authorization letter for this purpose. Prior to employee access to medical records, the company physician, may on behalf of employer, discuss with the employee the contents of their medical records. Copies of medical records will not be given for employees use in seeking new or additional employment as this is not the purpose of this program. Employee medical records are records that concern the health status of an employee and are made or maintained by a physician, nurse, or other health care personnel, or technician either company employed or 3rd party.

### ***ANALYSES USING EXPOSURE OR MEDICAL RECORDS***

---

The standard assures that an employee/representative or OSHA, can have access to analyses that were developed using information from exposure or medical records about the employee’s working conditions, workplace(s) and can contain either environmental and/or biological monitoring when warranted. All personal identifiers shall be removed from the data analyses prior to access.

## ***RETENTION OF RECORDS***

---

OWEN Construction Inc. will preserve and maintain accurate medical and exposure records for each employee. Medical records, exposure records and data analyses based on these records shall be kept for at least the duration of employment plus 30 years or as required by law. Background data for exposure records such as laboratory reports and work sheets shall be kept for 1 year. Records of employees who have worked for less than 1 year need not be retained after employment if the company provides/offers these records to the employee upon termination of employment. First-aid records of one-time treatment shall not be retained for any specified period. OSHA does not mandate the form, manner, or process by which an employer preserves a record, except that chest x-ray films must be preserved in their original state. Information that is confidential in nature will not be released to any persons not authorized by the employee in writing. All records will be kept on file at the company's main office. Should OWEN Construction Inc. be bought out, sold or disbanded, all records will be turned over to new owner(s) and maintained/retained as outlined by policy/law. Medical records and exposure records reviewed by medical personnel will be available as part of "patient record" at the facility performed by law as well.

Written records will be kept of all work related fatalities, injuries and illnesses. All injuries will be recorded on the OSHA 300 log as required by law within 7 days of the incident. These incidents will also be posted on the OSHA 300a summary, signed by a company official, posted at the office for anyone interested to see and displayed from February 1 thru April 30 of the year following the accidents. These logs are kept on file for 5 years.

All employees are informed and trained on provision of recordkeeping at hire (initial assignment) and annually thereafter through documented safety meetings.



## **Trenching and Excavation Policy**

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## **Purpose**

---

The purpose of this program is to establish the policies and requirements for the company trenching and excavation safety program. OWEN Construction Inc. is committed to providing a safe work environment for all employees. All employees who are involved with trench and excavation work must be familiar with the requirements of this program, and must be trained on the relevant hazards of the workplace.

## **Program Responsibilities**

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### **Management**

---

Management has the following responsibilities:

1. To provide personal protective equipment and protective systems that meet the requirements of OSHA.
2. To develop an excavation safety policy and revise it when necessary.
3. To identify employees who are affected by this policy and ensure that they receive the required training.
4. To provide technical support to employees.
5. To ensure the company is operating in accordance with this policy by performing periodic reviews and audits.
6. To provide atmospheric testing and equipment when necessary
7. To review this safety policy for effectiveness annually and when deficiencies are discovered.

### **Program Coordinator**

---

The Excavation Program Coordinator has the following responsibilities:

1. To manage the administration of the company excavation program.
2. To ensure that the company excavation program is adhered to.
3. To conduct periodic inspections to assure compliance.
4. To coordinate the training for all employees.
5. To determine the means of protection for each excavation site.
6. To ensure that professional engineers are consulted as necessary.
7. To make a copy of this program and the OSHA excavation standard available to employees.

### **Supervisors**

---

Supervisors have the following responsibilities:

1. To ensure that no employees perform work in or near excavations without receiving the required safety training.
2. To make sure that employees are working in accordance with this program.
3. To provide communication between employees and management on safety issues.
4. To make sure that employees have available and use all required personal protective equipment.

5. To monitor employees to verify they are using safe work practices.
6. To ensure that competent person inspections are performed daily and as conditions require.

## Employees

---

Employees have the following responsibilities.

1. To complete all required safety training before working near excavations.
2. To wear all required personal protective equipment.
3. To work in accordance with the rules of this program.
4. To immediately report any safety issues to a supervisor.

## Training Requirements

---

The following training requirements apply:

1. All operators and employees who work near or in excavations must be trained by a company designated trainers on the requirements of this program, and on the relevant hazards of the workplace.
2. Training must occur prior to the first work assignment.
3. Retraining is required when:
  - a. When employees demonstrate a lack of proficiency.
  - b. When work place hazards change.
  - c. As determined by the employer.
4. Training records will be maintained by the employer and must include:
  - a. Date of the training.
  - b. Name of the trainer(s).
  - c. Employee names and signatures.

## Training Topics

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Excavation safety training must include:

1. Safe work practices for working in excavations.
2. The use of personal protective equipment required for excavation work.
3. Requirements for excavations that may include atmospheric hazards.
4. The requirements of the OSHA excavation standard.
5. Emergency and non-entry rescue methods, and the procedure for calling rescue services.
6. The company policy for reporting injuries.

## Excavation Requirements

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### A. Utilities and Pre-Work Site Inspection

Prior to excavation, the site shall be thoroughly inspected by a company designated competent person to determine if special safety measures must be taken.

## B. Surface Encumbrances

All equipment, materials, supplies, permanent installations (i.e., buildings or roadways), trees, brush, boulders, and other objects at the surface that could present a hazard to employees working in the excavation shall be removed or supported as necessary to protect employees. If these surface encumbrances cannot be safely managed, the work may not occur.

## C. Underground Installations

1. The location of sewer, telephone, fuel, electric, water, or any other underground installations or wires that may be encountered during excavation work shall be determined and marked prior to opening an excavation. Arrangements will be made as necessary by the Supervisor with the appropriate utility entity for the protection, removal, shutdown, or relocation of underground installations.
2. If it is not possible to establish the exact location of these installations, the work may proceed with caution if detection equipment or other safe and acceptable means are used to locate the utility.
3. Excavation shall be done in a manner that does not endanger the underground installations or the employees engaged in the work. Utilities left in place shall be protected by barricades, shoring, suspension, or other means as necessary to protect employees.

## D. Protection of the Public

Barricades, walkways, lighting, and posting shall be provided as necessary for the protection of the public prior to the start of excavation operations.

1. Guardrails, fences, or barricades shall be provided on excavations adjacent to walkways, driveways, and other pedestrian or vehicle thoroughfares. Warning lights or other illumination shall be maintained as necessary for the safety of the public and employees from sunset to sunrise.
2. Wells, holes, pits, shafts, and all similar hazardous excavations shall be effectively barricaded or covered and posted as necessary to prevent unauthorized access. All temporary excavations of this type shall be backfilled as soon as possible.
3. Walkways or bridges protected by standard guardrails shall be provided where employees and the general public are permitted to cross over excavations. Where workers in the excavation may pass under these walkways or bridges, a standard guardrail and toe board shall be used to prevent the hazard of falling objects.

## E. Protection of Employees

Stairs, ladders, or ramps shall be provided at excavation sites where employees are required to enter trench excavations over four (4) feet deep. These access ladders must be within 25 feet of the worker.

#### 1. Structural Ramps

- a. Structural ramps used solely by employees as a means of access or egress from excavations shall be designed by a competent person. Structural ramps used for access or egress of equipment shall be designed by a person qualified in structural design, and shall be constructed in accordance with the design.
- b. Ramps and runways constructed of two or more structural members shall have the structural members connected together to prevent movement or displacement.
- c. Structural members used for ramps and runways shall be of uniform thickness.
- d. Cleats or other appropriate means used to connect runway structural members shall be attached to the bottom of the runway or shall be attached in a manner to prevent tripping.
- e. Structural ramps used in place of steps shall be provided with cleats or other surface treatments on the top surface to prevent slipping.

#### 2. Ladders

- a. When portable ladders are used, the ladder side rails shall extend a minimum of three (3) feet above the upper surface of the excavation.
- b. Ladders shall have nonconductive side rails if work will be performed near exposed energized equipment or systems.
- c. Two or more ladders, or a double-cleated ladder, will be provided where 25 or more employees will be conducting work in an excavation where ladders serve as the primary means of egress, or where ladders serve two-way traffic.
- d. Ladders will be inspected prior to use for signs of damage or defects. Damaged ladders will be removed from service and marked with “Do Not Use” until repaired.
- e. Ladders shall be used only on stable and level surfaces unless secured. Ladders placed in any location where they can be displaced by workplace

activities or traffic shall be secured, or barricades shall be used to keep these activities away from the ladders.

f. Non self-supporting ladders shall be positioned so that the foot of the ladder is one-quarter of the working length away from the support.

g. Employees are not permitted to carry any object or load while on a ladder that could cause them to lose their balance and fall.

#### F. Exposure to Vehicular Traffic

Employees exposed to vehicular traffic shall be provided with, and shall wear warning vests or other suitable garments marked with or made of reflective or high-visibility material. Warning vests worn by flag persons shall be red or orange, and must have reflective material. Emergency lighting, such as spotlights or portable lights, shall be provided as needed to perform work safely.

#### G. Exposure to Falling Loads

No employee is permitted underneath loads being handled by lifting or digging equipment. Employees are required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles provide adequate protection for the operator during loading and unloading operations.

#### H. Warning System for Mobile Equipment

A warning system shall be used when mobile equipment is operated adjacent to the edge of an excavation if the operator does not have a clear and direct view of the edge of the excavation. The warning system shall consist of barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

#### I. Hazardous Atmospheres

The Program Coordinator or designated representative will test the atmosphere in excavations over four feet deep if a hazardous atmosphere exists or could reasonably be expected to exist.

1. Adequate precautions shall be taken to prevent employee exposure to atmospheres containing less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or forced ventilation of the workspace.
2. Forced ventilation or other effective means shall be used to prevent employee exposure to an atmosphere containing a flammable gas in excess of ten percent of the lower flammability limit of the gas.

3. When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, continuous air monitoring will be used. The device used for atmospheric monitoring shall be equipped with an audible and visual alarm.
4. Atmospheric testing will be performed using a properly calibrated direct reading gas monitor. Direct reading gas detector tubes or other acceptable means may also be used to test potentially toxic atmospheres.
5. Each atmospheric testing instrument shall be calibrated by a designated person on a schedule and in the manner recommended by the manufacturer. In addition:
  - a. Any atmospheric testing instrument that has not been used within 30 days shall be recalibrated prior to use.
  - b. Each atmospheric testing instrument shall be calibrated at least every six months.
6. Each atmospheric testing instrument will be field checked immediately prior to use to ensure that it is operating properly.

#### J. Personal Protective Equipment

1. All employees working in trenches or excavations shall wear approved hardhats and steel-toed shoes or boots.
2. Employees exposed to flying fragments, dust or other materials produced by drilling, sawing, sanding, grinding, and similar operations shall wear approved safety glasses with side shields.
3. Employees performing welding, cutting, or brazing operations, or are exposed to the hazards produced by these tasks, shall wear approved spectacles or a welding face shield or helmet, as required by the company welding and cutting policy.
4. Employees entering bell-bottom pier holes or other similar deep and confined footing excavations shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any line used to handle materials and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.
5. Employees shall wear approved gloves or other suitable hand protection.
6. Employees using or working in the immediate vicinity of hammer drills, masonry saws, jackhammers, or similar high-noise producing equipment shall wear suitable hearing protection.

7. Each employee working at the edge of an excavation six feet or more deep shall be protected from falling. Fall protection shall include guardrail systems, fences, barricades, covers, or a tieback system meeting OSHA requirements.

8. Emergency rescue equipment, such as breathing apparatus, a safety harness and line, and a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may develop during work in an excavation. This equipment shall be attended when in use. Only personnel who have received approved training and have appropriate equipment shall attempt retrieval that would require entry into a hazardous atmosphere. If entry into a known hazardous atmosphere must be performed, the Program Coordinator shall be given advance notice so that the hazards can be evaluated and rescue personnel placed on standby if necessary.

#### K. Walkways and Guardrails

Walkways shall be provided where employees or equipment are permitted to cross over excavations. Guardrails shall be provided where walkways, accessible only to on-site project personnel, are six (6) feet or more above lower levels.

#### L. Protection from Water Accumulation Hazards

1. Employees are not permitted to work in excavations that contain or are accumulating water unless precautions have been taken to protect them from the hazards posed by water accumulation. Precautions may include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of safety harnesses and lifelines.

2. If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operation shall be monitored by a person trained in the use of that equipment.

3. If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation. Precautions shall also be taken to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains shall be inspected by a competent person after each rain incident to determine if additional precautions, such as special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of safety harnesses and lifelines, should be used.

#### M. Stability of Adjacent Structures

The Management or designated representative will determine if the excavation work could affect the stability of adjoining buildings, walls, sidewalks, or other structures.

1. Support systems (such as shoring, bracing, or underpinning) shall be used to assure the stability of structures and the protection of employees where excavation operations could affect the stability of adjoining buildings, walls, or other structures.
2. Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees shall not be permitted, except when:
  - a. A support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure;
  - b. The excavation is in stable rock;
  - c. A registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity; or
  - d. A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees.
3. Sidewalks, pavements, and appurtenant structures shall not be undermined unless a support system or other method of protection is provided to protect employees from the possible collapse of such structures.
4. Where review or approval of a support system by a registered professional engineer is required, the Program Coordinator shall secure this review and approval in writing before the work begins.

#### N. Protection from Falling Objects and Loose Rocks or Soil

1. Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of:
  - a. Scaling to remove loose material;
  - b. Installation of protective barricades, such as wire mesh or timber, at appropriate intervals on the face of the slope to stop and contain falling material; or
  - c. Benching sufficient to contain falling material.
2. Excavation personnel shall not be permitted to work above one another where the danger of falling rock or earth exists.
3. Employees shall be protected from excavated materials, equipment, or other materials that could pose a hazard by falling or rolling into excavations.
4. Protection shall be provided by keeping such materials or equipment at least two (2) feet from the edge of excavations, by use of restraining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

5. Materials and equipment need to be stored further than two (2) feet from the edge of the excavation.
6. Materials piled, grouped, or stacked near the edge of an excavation must be stable and self-supporting.

## **Excavation Protective System Requirements**

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### **A. Protection of Employees**

1. Employees in an excavation shall be protected from cave-ins by using either an adequate sloping and benching system or an adequate support or protective system. The only exceptions are:
  - a. Excavations made entirely in stable rock; or
  - b. Excavations less than five (5) feet in depth where examination of the ground by a competent person provides no indication of a potential cave-in.
2. Protective systems shall be capable of resisting all loads that could reasonably be expected to be applied to the system.

### **B. Design of Sloping and Benching Systems**

The slope and configuration of sloping and benching systems shall be selected and constructed under the direction of the Supervisor in accordance with the following options:

1. Allowable configurations and slopes
  - a. Excavations shall be sloped at an angle no steeper than one and one-half (1 ½) horizontal to one (1) vertical (34 degrees measured from the horizontal), unless one of the options listed below is used.
  - b. Slopes shall be properly excavated depending on soil type as shown in 29 CFR 1926, Subpart P, Appendix B.
2. Determination of slopes and configurations using 29 CFR 1926, Subpart P, Appendices A and B

The maximum allowable slopes and allowable configurations for sloping and benching systems shall meet the requirements set forth in these appendices.

3. Designs using other tabulated data

The design of sloping or benching systems may be selected from, and shall be constructed in accordance with, other tabulated data, such as tables and charts. The tabulated data used must be in written form and include the following:

- a. Identification of the factors that affect the selection of a sloping or benching system.
- b. Identification of the limits of the use of the data, including the maximum height and angle of the slopes determined to be safe.
- c. Other information needed by the user to make correct selection of a protective system.
- d. At least one copy of the tabulated data that identifies the registered professional engineer who approved the data shall be maintained at the jobsite during construction of the protective system. After that time, the data may be stored off the jobsite, and shall be maintained by the company.

#### 4. Design by a registered professional engineer

Sloping or benching systems designed in a manner other than those described in the preceding three options shall be approved by a registered professional engineer.

- a. Designs shall be in written form and shall include at least the following information:
  - i. The maximum height and angle of the slopes that were determined to be safe for a particular project; and
  - ii. The identity of the registered professional engineers who approved the design.
- b. At least one copy of the design shall be maintained at the jobsite while the slope is being constructed. After that time, the design may be stored off the jobsite, and shall be maintained by the company.

#### C. Design of Support, Shield, and Other Protective Systems

The design of support systems, shield systems, and other protective systems shall be selected and constructed under the direction of the Program Coordinator in accordance with the following requirements:

1. Designs using 29 CFR 1926, Subpart P, Appendices A, C and D
  - a. Timber shoring in trenches shall be designed in accordance with the requirements of the OSHA guidelines.

b. Aluminum hydraulic shoring shall be designed in accordance with the manufacturer's tabulated data or the requirements of the OSHA guidelines.

2. Designs using manufacturer's tabulated data

a. Support systems, shield systems, and other protective systems designed from manufacturer's tabulated data shall be constructed and used in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.

b. Deviation from the specifications, recommendations, and limitations issued or made by the manufacturer shall be allowed only after the manufacturer issues specific written approval.

c. Manufacturer's specifications, recommendations, and limitations, as well as the manufacturer's written approval to deviate from the specifications, recommendations, and limitations, shall be kept in written form at the jobsite during construction of the protective system(s). After that time, the information may be stored off the jobsite, and shall be maintained by the company.

3. Designs using other tabulated data

Designs of support systems, shield systems, and other protective systems shall be selected from and constructed in accordance with tabulated data, such as tables and charts.

a. The tabulated data shall be in written form and shall include all of the following:

1. Identification of the factors that affect the selection of a protective system drawn from such data;
2. Identification of the limits of the use of such data; and
3. Information needed by the user to make a correct selection of a protective system from the data.

b. At least one written copy of the tabulated data, which identifies the registered professional engineer who approved the data, shall be maintained at the jobsite during construction of the protective system. After that time, the data may be stored off the jobsite, and shall be maintained by the company.

#### 4. Design by a registered professional engineer

Support systems, shield systems, and other protective systems designed in a manner other than the preceding three options shall be approved by a registered professional engineer.

- a. Designs shall be in written form and shall include:
  - i. A plan indicating the sizes, types, and configurations of the materials to be used in the protective system; and
  - ii. The identity of the registered professional engineer who approved the design.
- b. At least one copy of the design shall be maintained at the jobsite during construction of the protective system. After that time, the design may be stored off the jobsite, and shall be maintained by the company.

#### D. Materials and Equipment

1. Materials and equipment used for protective systems shall be free from damage or defects that might affect their proper function.
2. Manufactured materials and equipment used for protective systems shall be used and maintained in accordance with the recommendations of the manufacturer, and in a manner that will prevent employee exposure to hazards.
3. When materials or equipment used for protective systems are damaged, the Program Coordinator shall ensure that these systems are examined by a competent person to evaluate suitability for continued use. If the competent person cannot assure that the material or equipment is able to support the intended loads or is otherwise suitable for safe use, then such material or equipment shall be removed from service. The material or equipment shall then be evaluated and approved by a registered professional engineer before being returned to service.

#### E. Installation and Removal of Supports

1. General
  - a. Members of support systems shall be securely connected together to prevent sliding, falling, kick outs, or other potential hazards.
  - b. Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support systems.

- c. Individual members of the support systems shall not be subjected to loads exceeding those that they were designed to support.
- d. Before temporary removal of individual support members begins, additional precautions shall be taken to ensure the safety of employees (i.e., the installation of other structural members to carry the loads imposed on the support system).
- e. Removal of support systems shall begin at, and progress from, the bottom of the excavation. Members shall be released slowly. If there is any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation, the work shall be halted until it can be examined.
- f. Backfilling shall progress in conjunction with the removal of support systems from excavations.

## 2. Additional Requirements

- a. Excavation of material to a level no greater than two (2) feet below the bottom of the members of a support system is allowed, but only if the system is designed to resist the forces calculated for the full depth of the trench. There shall be no indications of a possible loss of soil from behind or below the bottom of the support system while the trench is open.
- b. Installation of a support system shall be closely coordinated with the excavation of trenches.

## F. Sloping and Benching Systems

Employees are not permitted to work above other employees in the faces of sloped or benched systems, except when employees at lower levels are protected from the hazards of falling, rolling, or sliding material or equipment.

## G. Shield Systems

### 1. General

- a. Shield systems shall not be subjected to loads that are greater than those they are designed to withstand.
- b. Shields shall be installed in a manner that will restrict lateral or other hazardous movement of the shield and could occur during cave-in or unexpected soil movement.
- c. Employees shall be protected from the hazard of cave-ins when entering or exiting the areas protected by shields.

- d. Employees are not permitted in trenches when shields are being installed, removed, or moved vertically.

## 2. Additional Requirements

- a. Excavation of material to a level no greater than two (2) feet below the bottom of the shield system is allowed, but only if the system is designed to resist the forces calculated for the full depth of the trench.
- b. There shall be no indications of a possible loss of soil from behind or below the bottom of the shield system while the trench is open.

## **Inspection Requirements**

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Excavations sites must be inspected by a competent person to ensure compliance with safety requirements. If any unsafe conditions are found during these inspections, work must be stopped until the situation is corrected.

### **Daily Inspections**

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Excavation sites must be inspected daily by a competent person. They must be inspected for:

- 1. Evidence of situations that could result in cave-ins.
- 2. Indications of failure of protective systems.
- 3. Hazardous atmospheres.
- 4. Employee compliance with safety policies.
- 5. Other hazardous conditions.

### **Foul Weather Inspections**

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Excavation sites must be inspected after rain and other weather conditions that may affect the safety of the excavation.

### **Periodic Inspections**

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Periodic inspections are coordinated by management to verify that this safety policy is adhered to.

## **Program Evaluation**

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The company excavation safety program will be reviewed on a yearly basis. The company will evaluate the effectiveness of the program, and correct any deficiencies discovered. Employees will have an opportunity to review and comment on this program. Program reviews will also be conducted whenever any incident causes the company to question the effectiveness of the program.



## First Aid Policy

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## ***FIRST AID POLICY***

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OWEN Construction Inc. Recognizes its responsibility to ensure that all reasonable precautions are taken to provide and maintain working conditions, which are safe, healthy and compliant with all statutory requirements and codes of practice. This includes the provision of Qualified First Aiders when ever possible on our job sites in the organization qualified to cope with minor injuries. If it is not possible for a first aid responder to be there we will rely on 911.

### ***Policy Background***

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OWEN Construction Inc. understands First Aid to refer to:

- . a) The initial and appropriate management of illness or injury which aims to preserve life or minimize the consequences of injury and illness until professional medical help can be obtained; and [L]  
[SEP]
- . b) The treatment of minor injuries that do not require the attention of a medical practitioner or nurse. [L]  
[SEP]
- . c) That treatment beyond standard treatment beyond first aid will be provided by emergency personal.
- . d) No employees will be transported in employee trucks if a major injury has occurred.

OWEN Construction recognizes that employers are required to make arrangements for first aid at work, to ensure that illness or injury at work is treated and managed in the most appropriate way.

### ***First Aid Responders***

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OWEN Construction will make every effort to have a Qualified First Aid Responder available at all times that there are staff working. They should be contacted via the main office where there is a list displayed with their names.

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## *First Aid Box*

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All employees of OWEN Construction Inc. will have access to a First Aid Box while at work. The first aid boxed will be in our service trucks and the employee who is assigned to the truck is responsible for checking its contents and ensuring that it is replenished when necessary. The box should contain the following:

1. Gauze pads (at least 4 x 4 inches).
2. Two large gauze pads (at least 8 x 10 inches).
3. Box adhesive bandages (Band-Aids).
4. One package gauze roller bandage at least 2 inches wide.
5. Two triangular bandages.
6. Wound cleaning agent such as sealed moistened towelettes.
7. Scissors.
8. At least one blanket.
9. Tweezers.
10. Adhesive tape.
11. Latex gloves.
12. Resuscitation equipment such as resuscitation bag, airway, or pocket mask.
13. Two elastic wraps.
14. Splint.
15. Directions for requesting emergency assistance.

Tablets or medicines should never be kept in the First Aid Box in this organization and [SEP] items that are out of date should be replaced and disposed of immediately. Appointed Persons who are allocated First Aid Boxes are responsible for checking contents. [SEP] First Aid signs and posters are prominently displayed in the main office informing staff, visitors and service users what to do in the event of an emergency and from whom to obtain First Aid assistance. [SEP] This should include emergency contact telephone numbers. Similar information is included in all care staff induction packs and should be carried by care staff at all times. [SEP] All staff must familiarize themselves with the First Aid arrangements and with the names and locations of Qualified First Aiders or Appointed Persons and First Aid Boxes.

In all situations where staff or service users are injured at work and requiring First Aid the accidents procedure should be followed and the appropriate accident forms should be turned in to the main office.

An incident record should also be made on the 301 forms and turned in.

First Aid responders must keep a record of all treatment that they provide by completing a First Aid Treatment Record. This information helps to identify accident trends and can be used for reference in future First Aid needs assessment.

### *Training*

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Any staff member who wishes to become a Qualified First Aid responder should contact their supervisor.

A Qualified First Aider must hold a valid certificate of Competence in First Aid at Work, issued by an organization whose training and qualifications are recognized. Such certificates are valid for three years and refresher training and re-testing must take place before the qualification expires.



# HAZARDOUS COMMUNICATION POLICY

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## **Purpose**

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The management of OWEN Construction Inc. is committed to preventing accidents and ensuring the safety and health of our employees. We will comply with all applicable federal and state health and safety rules and provide a safe, healthful environment for all our employees. To ensure that information about the dangers of all hazardous chemicals used by OWEN Construction is known by all affected employees, the following hazardous information program has been established. Under this program, employees will be informed of the contents of the OSHA Hazard Communications standard, the hazardous properties of chemicals in the work area, safe handling procedures and chemical protective measures.

This written hazard communication plan will be available at the following location for review by all employees in the Main Office.

## **Program Responsibilities**

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### **Management**

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Management has the following responsibilities:

1. To establish guidelines for hazard communication that meets the need of OWEN Construction and is compliant with OSHA and local regulations.
2. To ensure that employees are provided with the proper materials for communicating hazards to employees.
3. To designate an employee to administrate and supervise the hazard communication program.
4. To provide training to employees on hazard communication.
5. To ensure OWEN Construction is operating in accordance with this policy by performing periodic reviews and audits.
6. To review this safety policy for effectiveness periodically and when program deficiencies are discovered.

## **Hazard Communication Manager**

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The OWEN Construction Hazard Communication Program Manager is Keith Owen and can be contacted at 503 932 4176. The Hazard Communication Manager has the following responsibilities:

1. To supervise the implementation and execution of the hazard communication program.
2. To provide or coordinate hazard communication training for employees.
3. To ensure that materials received to OWEN Construction are properly labeled and have safety data sheets (SDS).
4. To ensure that all chemicals used at the facility are included on the chemical inventory list.
5. To ensure that OWEN Construction hazard communication program meets the requirements of OSHA.

6. To schedule periodic audits to monitor program effectiveness.

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## **Supervisors**

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Supervisors have the following responsibilities:

1. To ensure that they're functional areas have the appropriate hazard warnings.
2. To ensure that their functional areas have the proper SDS and that they are available to employees.
3. To make sure no employees work with or near chemicals without receiving the appropriate training.
4. To provide communication between employees and management on safety issues.

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## **Employees**

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Employees have the following responsibilities:

1. To attend required safety training classes prior to starting work.
2. To make sure that all chemicals used in the workplace are properly labeled.
3. To review the material safety data sheet for each chemical prior to using it.

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## **Chemical Shipping Container Labeling**

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The Keith Owen or designated employee will verify that all shipping containers with hazardous chemicals received for use are properly labeled. OWEN Construction will only accept chemical containers labeling with the GHS system. If the old labels are sent we will request the new label before using the chemicals.

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## **Hazard Communication Standard Shipping Labeling Requirements**

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Chemicals containers must meet the following labeling requirements.

1. Be clearly labeled as to the contents.
2. Have the appropriate hazard warning.
3. List the manufacturers name and address.

## **GHS Labeling Requirements**

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Chemical containers must be labeled with the following information.

1. A product identifier.
2. A signal word, either “Danger” or “Warning”.
3. A hazard statement.
4. A standard pictogram.
5. A precautionary statement.
6. The name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

It is the policy of OWEN Construction that no chemicals will be released for work until this information is verified.

## **Secondary Chemical Container Labeling**

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The supervisor of each work area will ensure that all secondary chemical containers are properly labeled. Secondary chemical container labeling can be labeled with the same shipping container labels, or information that communicates the following:

1. The identity of the chemical.
2. The hazards of the chemical.

The label may use a combination of words, symbols or pictures to communicate this information. OWEN Construction will use a standard labeling method for all secondary containers.

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## Safety Data Sheets

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The Keith Owen, designated person or Company will establish and maintain OWEN Construction Safety Data Sheet program. This person will ensure that procedures are in place that maintains the necessary SDSs and that new ones are reviewed for new or significant safety and health information. Any new information will be immediately communicated to employees and added to the SDS storage locations. Copies of Safety Data Sheets for all hazardous chemicals to which employees of this enterprise may be exposed will be stored at:

1. Main Office
2. Shop
3. Trucks carrying chemicals (will have a sheet for each chemical on board)

SDSs will be available to all employees in their work area for review during each work shift. If SDSs are not available or new chemicals in use do not have an SDS, employees may not use the chemical, and they will immediately contact their Supervisor or Keith Owen.

If a SDS is not received with a shipment of chemicals, those chemicals will be kept away from employees and out of use in a staging area until a proper SDS is obtained. Old safety data sheets that are no longer applicable must be removed from the SDS binder and stored in the 30 year eliminated binder.

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## Hazardous Non-Routine Tasks

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Periodically, employees must perform hazardous non-routine tasks. Before starting work on such projects, each affected employee will be given information by the owner or area supervisor about hazardous chemicals to which they may be exposed during such activity.

This information will include:

- Specific chemical hazards.
- Protective/safety measures employees can take.
- Measures the enterprise has taken to reduce the hazard, including ventilation, respirators, presence of other employees, and emergency procedures.

The following are examples of hazardous non-routine tasks that may be expected of employees.

| <b><u>Hazardous Task</u></b>            | <b><u>Associated Hazardous Chemical</u></b> |
|-----------------------------------------|---------------------------------------------|
| Working around Hazardous chemical pipes | What ever is in pipe                        |
| Excavating in or near sewer plants      | Hazardous and toxic fumes or chemicals      |
|                                         |                                             |
|                                         |                                             |

## Chemicals in Pipes

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Some work activities are performed by employees in areas where chemicals are transferred through pipes. Prior to starting work in these areas, employees will contact their supervisor or Keith Owen for information regarding:

- The chemicals in the pipes, or the insulation material on the pipe.
- Potential hazards.
- Safety precautions to be taken.

## Hazardous Chemical List

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OWEN Construction will maintain a list of all hazardous chemicals in use at our shop and job sites as part of this written program. The following is a list of all known hazardous chemicals used by OWEN Construction employees. More information on each chemical noted is available by reviewing the SDSs.

| Chemical Inventory |                |          |
|--------------------|----------------|----------|
| Product Name       | Hazard Warning | Location |
|                    |                |          |
|                    |                |          |
|                    |                |          |
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## Training Requirements

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OWEN Construction is responsible for the Hazard Communication Training program and has hired KARM Safety Solutions to ensure that its elements are carried out. Prior to starting work, each new employee of OWEN Construction will attend a health and safety orientation and will receive information and training on the following:

1. An overview of the requirements contained in 1910.1200 – Hazard Communication Rule.
2. Chemicals present in their workplace operations.
3. Location and availability of our written hazard communication program and SDSs.
4. Physical and health effects of the hazardous chemicals.
5. The symptoms over overexposure to hazardous chemicals.
6. Methods and observation techniques used to determine the presence or release of hazardous chemicals in the work area.
7. How to reduce or prevent exposure to these hazardous chemicals through the use of control/work practices and personal protective equipment.
8. Steps OWEN Construction has taken to reduce or prevent exposure to the chemicals.
9. Safety emergency procedures to follow if they employee is exposed to these chemicals.
10. How to read labels and review SDSs to obtain proper hazard information.

This training program will consist of two parts. The first part is a classroom training session, where the requirements of the OSHA Hazard Communication Standard and OWEN Construction Hazard Communication Plan are covered. The second part consists of a workplace evaluation where the employee demonstrates the required knowledge, understanding, and abilities of the course. After completing the training class, each employee will sign a form to verify they attended the training and understood the policies on hazard communication.

Prior to a new hazardous chemical being introduced into any area of this workplace, each employee of that area will be given training as outlined above. OWEN Construction is responsible for ensuring that SDSs on any new chemicals are available.

### **Contractor Requirements**

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It is the responsibility of OWEN Construction management to provide contractors the following information if requested:

- Hazardous chemicals to which they may be exposed to while on the job site, and the procedure for obtaining SDSs.
- Precautions employees may take to lessen the possibility of exposure, by using appropriate protective measures, and an explanation of the labeling system used.
- OWEN Construction hazardous chemical labeling system.

This information will be communicated as part of a contractor site safety orientation.

It is the responsibility of OWEN Construction staff to identify and obtain SDSs for the chemicals that contractors bring into the workplace if required, as we are generally the first people on site.

### **Program Evaluation**

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OWEN Construction hazard communication program will be reviewed on a yearly basis. OWEN Construction management will evaluate the effectiveness of the program, and correct any deficiencies discovered. Employees will have an opportunity to review and comment on this program. Program reviews will also be conducted whenever any incident causes OWEN Construction to question the effectiveness of the program.



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## *Utility Locate Policy*

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## *Purpose*

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To provide a guideline for standard operating procedures when obtaining and/or carry out Utility Locates for excavations or sub surface works.

## *Procedure*

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Prior to excavation or sub surface works, the person responsible for the work shall contact all appropriate utilities and request a locate of utility lines within the area of the proposed work. The supervisor in charge must receive the required locates prior to commencing any excavation.

The supervisor, when requesting a locate, shall provide the utility with relevant information describing the location where the work will take place, the expected time when the work will begin, the scope of the work, the nature of the work, the expected duration, the name address and telephone number of the contractor or person in charge, and the name of the site representative.

The utility shall provide information using labeled stakes, flags, and/or highly visible paint marks continuously or at regular intervals on the surface of the ground. The markings should clearly indicate the centerline of the utility line and the limits of underground structures, where applicable, in the defined area of the proposed excavation.

When requested by either party, the Utility and the contractor and/or person in charge shall meet on site to confirm details of the excavation and the location of the utility line.

In the event that locate information is not clear, work must not commence until such time as the required information is provided and is understood by the contractor or person in charge.

The contractor or person in charge shall not excavate outside the area covered by the locate request without first obtaining a further locate.

Locate accuracy shall be considered to be 24" on either side of the surface centerline, unless the locate instructions specifically indicate other boundary limits.

Should a locate expire which is after 60 days prior to work commencing, a new locate is to be obtained prior to the commencement of work.

All utilities are to be exposed by non-mechanical means. (i.e. hand dig, hydro excavation, or other non-mechanical methods) Once the identified utility is exposed and clearly visible, mechanical excavation can be conducted.

All pipes, conduits and cables for gas, electrical and other services in an excavation shall be supported to prevent their failure or breakage.

Where a utility line is found during excavation that was not accurately (as described above) identified by the utility, but within the area covered by the locate, the contractor or person in charge shall never assume the line is an abandoned utility line. Further, the contractor or person in charge shall never assume that the line is the utility identified on the locate unless it is located within the acceptable level of accuracy. The contractor or person in charge shall assume that all utility lines are live unless otherwise expressly and accurately identified by the utility on the locate. Should a utility be discovered that has not accurately been identified on the locate, the contractor or person in charge shall immediately cease all work and contact the utility as appropriate, to determine if the line is abandoned or live. A revised locate is to be obtained detailing the utility discovered.

If damage to the utility line occurs, including damage to the coating, the contractor or person in charge shall leave the utility line exposed, secure the area and contact the utility immediately.

If gas is escaping from a gas pipeline, shut off vehicles or equipment, remove or extinguish all ignition sources, secure the area, and keep public and workers away. Call 911 and the Gas utility immediately. No attempt should be made to control the escaping gas.

If there are any flames or sparks originating from the exposed electric distribution line or other works, secure the area, and keep public and workers away. Call 911.

Note: In no case shall the contractor or person in charge attempt to control or make repairs to the damaged utility line or equipment.

All work shall be carried out in accordance with The Occupational Health and Safety Act (OH&S) and Regulations, which apply under this Act.

### *Utility Locates*

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The area requested to be located is to be clearly marked in the field with white marking paint.

In the event that locate information is not clear, locating work must not commence until such time as the required information is provided by the requestor and is understood by the employee conducting the locate.

The employee shall provide information using labeled stakes, flags, and/or highly visible paint marks continuously or at regular intervals on the surface of the ground for the particular utility being located. The markings should clearly indicate the centerline of the utility line and the limits of underground structures, where applicable, in the defined area of the proposed excavation.

When requested by either party, the employee, Supervisor, or Manager shall meet on site with the locate requestor to confirm details of the excavation and the location of the utility line.

Locate accuracy shall be considered to be 24" on either side of the surface centerline locate or 24" on either side of the marked limits of the underground structure, unless the locate instructions specifically indicate other boundary limits.

Locates are to be completed within the designated time period dependent on the type of locate request received. The following table details each type of locate and the associated timeline.

All locate work shall be carried out in accordance with The Occupational Health and Safety Act (OH&S) and Regulations which apply under this Act.

## *Safety Inspection*

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Before you start the excavation walk the area and look for any signs there might be hidden utilities missed by locates, these include man hole covers, utility markers down the road giving you an idea that something was missed.

## *Responsibilities*

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### **Employer**

1. The Employer is responsible for ensuring proper application of the Utility Locate Policy.

### **Supervisor**

1. Shall ensure that employees involved in locate, excavation, and/or sub surface work are trained on Utility Locate Procedures for Excavation or sub surface work. [L] [SEP]
2. Ensure compliance with the Excavation – Internal and External Utility Locate Policy and Procedures. [L] [SEP]
3. Upon request, meet with a contractor or person in charge and/or Utility to clarify utility locates and/or supervisor the uncovering of a service during an excavation. [L] [SEP]
4. Provide employees with the appropriate equipment and materials for the job. [L] [SEP]

### **Employee**

1. Adhere to the Excavation Utility Locate Policies and Procedures. [L] [SEP]
2. Obtain all required utility locates prior to excavation. [L] [SEP]
3. Accurately locate and mark utilities when performing utility locates. [L] [SEP]
4. Expose all utilities by non-mechanical means. [L] [SEP]

## *Training*

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All employees involved in locate, excavation, and/or sub surface work will be trained on Utility Locate Policies and Procedures for Excavation or sub surface work.

Employees that feel they require further training must notify their manager/supervisor immediately.

To keep employees current in all aspects of health and safety, literature will be provided on all upcoming educational opportunities through the use of bulletin boards, pay inserts, internal memos. Posters promoting health and safety will be posted to encourage good safety practices in the workplace.

| <b>Color Combinations</b> | <b>New Standard<br/>ASME A13.1-2007 (R2013)</b> | <b>Old Standard<br/>ASME A13.1-1996 (R2002)</b>                                                                                 |
|---------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>White on Red</b>       | Fire quenching fluids                           | Fire quenching materials                                                                                                        |
| <b>Black on Orange</b>    | Toxic and corrosive fluids                      |                                                                                                                                 |
| <b>Black on Yellow</b>    | Flammable fluids                                | Hazardous Materials<br>Flammable or explosive<br>Chemically active or toxic<br>Extreme temperatures or pressures<br>Radioactive |
| <b>White on Brown</b>     | Combustible fluids                              |                                                                                                                                 |
| <b>White on Green</b>     | Potable, cooling, boiler feed, and other water  | Low hazard materials                                                                                                            |
| <b>White on Blue</b>      | Compressed air                                  | Low hazard gases                                                                                                                |
| <b>White on Purple</b>    | User defined                                    |                                                                                                                                 |
| <b>Black on White</b>     | User defined                                    |                                                                                                                                 |
| <b>White on Gray</b>      | User defined                                    |                                                                                                                                 |
| <b>White on Black</b>     | User defined                                    |                                                                                                                                 |

### *Communication*

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The Utility Locate Program will be communicated to all employees through the following methods:

5. Employee Handbook [L] [SEP]
6. Safety Policy and Procedures Manual [L] [SEP]
7. Health & Safety Board [L] [SEP] [L] [SEP]
8. Pay Inserts [L] [SEP]

9. Training Sessions [L][SEP]
10. Tailgate Meetings [L][SEP]
11. Employee Feedback [L][SEP]
12. Orientation [L][SEP]
13. Inspections [L][SEP]
14. Performance Appraisals [L][SEP]

### *Acknowledgement/ Improvement*

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Findings from Workplace Inspections and employee usage will determine if modifications are required to the Internal and External Utility Locate Program. Any modifications made to the program will be reviewed with all employees at staff meetings.

[L][SEP]The Utility Locate Program will be successful due to the participation of all employees carrying out their roles in the program and providing feedback on how this program can be improved.

### *Evaluation*

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Employees are encouraged to provide feedback on an ongoing basis to assist with improvements to this Utility Locate Program.

[L][SEP]A review of the Utility Locate Program will take place on an annual basis to determine its effectiveness. [L][SEP]



## **MACHINE GUARDING POLICY**

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## *Purpose*

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The purpose of this program is to establish the policies and requirements for machine guarding. OWEN Construction is committed to providing a safe work environment for all employees. All employees who are involved with the construction, usage, or maintenance of power hand tools on the construction site, must be familiar with the policies of this program.

## *Requirements*

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### General

Serious injury can result from coming into contact with the moving parts of a machine. This procedure outlines the requirements and describes methods to protect employees from machine hazards.

The safeguarding of any single machine depends on how and where it is used. Variables to consider include:

1. Manufacturers' recommendations
2. Government regulations
3. Production requirements
4. Accepted industry standards
5. Operator training and skill
6. Company practice
7. Environmental factors
8. Maintenance activities
9. Cost of safeguarding options

## *Machine Safeguarding*

---

Machine safeguarding is the application of engineering, work practice, and administrative controls to prevent the injury of employees who operate machines or who are in the vicinity of machine operations. The primary steps of machine safeguarding are:

1. Identify hazards
2. Predict injury and the probability of occurrence
3. Develop and implement a systematic safeguarding program
4. Develop, implement and maintain machine guarding training and awareness

There are four major elements that should be understood about machine safeguarding:

1. Any part, function, or process that may cause injury must be safeguarded. Where possible, manufacturer-supplied means of guarding should be used.
2. When safeguarding machines, utilize methods that provide protection and good production processes.
3. Guards in themselves must not create a hazard.
4. Guards should be attached to the machine, if possible.

### *Common Methods of Guarding are:*

---

1. Fixed barrier guards (preferred)
2. Adjustable barrier guards
3. Interlocking devices
4. Remote control and placement
5. Electronic safety devices
6. Removal devices
7. Pressure-sensing devices
8. Administrative controls

Combinations of the above methods may be required for machine guarding and operational safety.

General machine guarding policies are as follows:

- A guard shall be attached to each machine, if possible, and be designed so it does not offer an accident hazard.
- A guard device shall prevent the operator from having any part of the body from contacting the moving parts of machinery or equipment during the operating cycle.
- Special hand tools provide supplemental protection for employees when placing and removing material. They permit easy handling of materials and eliminate the need for operators to place a hand in the danger zone. Such tools do not replace guarding.
- All revolving drums, barrels and containers shall be guarded by an enclosure that is interlocked with the drive mechanism.
- All revolving shafts, wheels, pulleys and other revolving parts shall be guarded to prevent an employee from coming in contact with the moving part.
- If the periphery of blades of a fan is less than seven feet above the floor or working level, the blades shall be guarded. The guard shall have openings that are no larger than ½ inch.
- Machines designed for a fixed location shall be securely anchored to prevent walking, moving, and tipping.
- When maintenance is required a lock out device must be used to prevent injury.
-

## *Machine Operation Clearance*

---

Machine operators and personnel performing maintenance should read and understand the applicable sections of a manufacturer's owner/operator and maintenance manuals before operating the machine. Machine operators and personnel performing maintenance shall receive training, on the machine with approved training before working with the machines, to include at a minimum:

1. Train operators in proper operation, safety procedures, hazard recognition, and emergency shutdown procedures for each machine that they are assigned to operate.
2. Train personnel performing maintenance in hazard recognition, safe maintenance work practices, and emergency shutdown procedures for each machine that they are assigned to service.
3. Identify multiple energy sources and explain machine-specific lockout and tagout procedures to all personnel assigned to work with that machine.
4. Identify personal protective equipment required for machine operators and maintenance personnel and give the equipment to affected personnel.
5. Instruct personnel working with machines that jewelry, watches, bracelets, rings, necklaces, and neckties should not be worn and that long hair should be contained to prevent its entanglement.
6. Managers shall maintain a current list of personnel authorized to operate each machine or unique piece of equipment.

## *Installation*

---

When installing a machine, the following guidelines should be used:

1. Allow enough space between machines to ensure safe operation and material handling.
2. Install machines according to the manufacturer's instructions. Secure machines for fixed locations to prevent them from traveling during operation or if struck by equipment or personnel.
3. Locate operator controls within easy reach of the operator. Operators should be able to get to controls without reaching over hazardous areas or points of operation.
4. Install a disconnect switch that can be locked in the off position.
5. Install exhaust systems, when applicable, and supplementary lighting, if needed, for safe operation before machines are approved for use.

## *Inspection*

---

Employees who are assigned to machine operations or maintenance shall inspect machines before working with them.

## *Maintenance*

---

A preventive maintenance program shall be implemented to maintain the reliability of the machines and their guards. The manufacturer's maintenance manual should be consulted to develop the frequency and method of preventive maintenance.

## *Guarding Methods*

---

Any machine that grinds, shears, punches, presses, squeezes, draws, drills, cuts, rolls, mixes, or performs a similar action shall be guarded when possible. Safeguarding should prevent the operator and other employees from being struck, caught, burned, exposed to electric shock, or hit with chips or coolant.

If the manufacturer's recommendations for safeguarding do not meet government or industry standards, additional safeguarding should be implemented to comply with these standards.

A machine shall be operated only when all safeguards are functional and in place. No control or component of the machine's safeguarding system should be altered or bypassed, including limit switches, light curtains, interlocks, and presence-sensing devices, during normal operations.

### Color Codes

Machines should be color-coded with safety orange where there is an intermediate level of hazard. For example:

- Hazardous parts of machines that may cut, crush, or otherwise injure. Such hazards should be colored with an orange paint that shows when enclosure doors are open.
- The insides of movable guards and transmission guards for gears, pulleys, chains, and the like.
- Exposed parts (edges only) of pulleys, gears, rollers, cutting devices, power jaws, and the like.

Guards and protective covers should be color-coded with safety yellow. This designates that dangerous parts of machinery or energized electrical components are contained inside the guards and caution must be exercised. Exceptions include:

1. Portions of transparent shields designed to afford a clear view of the operation should not be painted.
2. Metal-mesh guards should be painted black to improve the operator's visibility. The border of the guard should be painted with safety yellow.

### *General Rules for Guarding*

---

#### **Guarding should:**

1. Protect the operator and other employees in the machine area from hazards such as those created by the point of operation, ingoing nip points, rotating parts, flying chips, and sparks.
2. Be attached to the machine or secured elsewhere if attachment is not possible.
3. Not pose an accident hazard in itself.
4. Conform to applicable government and industry standards. In the absence of such standards, it must be designed and constructed to prevent the operator and other employees from having any body part in the danger zone during the machine's operating cycle.
5. Be secured by means not easily removed.
6. Facilitate machine inspection as practical
7. Permit maximum visibility of the point of operation

### *Power Transmission Apparatus*

---

Hazards such as belts, gears, sprockets, chains, shafts, and pulleys that are associated with power transmissions apparatus must be guarded. Cover all moving parts of power transmission apparatus that are within 7 feet from the floor or working platform. Guard all exposed parts of horizontal, vertical, and inclined shafting that are within 7 feet from the floor or working platform. Use one of the following methods:

1. A stationary casing constructed of expanded, perforated, or solid-sheet metal
2. A helical-wound metal strip completely enclosing the shafting
3. A collapsible or telescoping guarding device unless the projection is less than one-half the diameter of the shaft and the projecting end is completely smooth.

For machines that require frequent oiling, use openings with hinged or sliding self-closing covers provided by the manufacturer.

- Provide oil lubrication points at remote or ground level mechanisms.
- Instruct regular oilers to wear tight-fitting clothing.
- Whenever possible, oil machinery when equipment is not in motion.

Protect employees from projections in revolving parts by:

- Removing the projections (preferred)

- Making the projections flush
- Guarding the projections with a metal cover

This does not apply to keys and setscrews already guarded within gear or sprocket casings.

### *Switches and Remote Controls*

---

Switches and remote controls should be safeguarded as follows:

1. Clearly mark switches and operating controls in simple language to indicate their purpose.
2. Keep switches, operating controls, and control buttons in good operating condition at all times. If a component is damaged or missing, immediately repair or replace it.
3. Guard the sides and tops of foot-operated control pedals to prevent accidental activation.
4. Never use a foot-operated control to operate a machine unless safeguarding is installed to prevent hands or other body parts from entering the point of operation.

### *Roles and Responsibilities*

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#### **Management**

1. Ensure compliance in their functional areas with the policies and requirements directed by this procedure.
2. Ensure their personnel are trained and qualified to perform the task being assigned to them.
3. Perform or have designee perform quarterly machine guarding inspections of all machinery.
4. Identify employees who are authorized to operate each piece of fixed shop machinery and equipment on job sites.
5. Ensure defective and unsafe machinery is properly tagged and taken out of service.
6. Ensure that if employees wear badges around their necks while operating machinery, that only breakaway badges are used. It is best to not have anything hanging from the neck when operating machinery.

## Employees

1. Comply with the machine guarding and training requirements directed by this procedure.
2. Do not perform any task requiring formal training until the required training is completed, documented, and current.
3. Refuse to operate any piece of equipment for which they are not familiar and/or not properly trained.

## Definitions

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Belts - Belts include all power transmission belts, such as flat belts, round belts, v-belts, etc.

Belt Shifter - A belt shifter is a device for mechanically shifting belts from tight to loose pulleys or vice versa or for shifting belts on cones of speed pulleys.

Employee - Includes all permanent and temporary employees and Sub-contractor employees.

Enclosures - Guarding by fixed physical barriers that are mounted on or around a machine to prevent access to moving parts.

Exposed to Contact- An object or part is exposed to contact if it is located in such a way that a person is likely to come into contact with it and be injured.

Fixed Shop Machinery - Fixed shop machinery is defined as any piece of machinery designed to perform work on material such as a drill press, bench grinder, table saw, or lathe which is mounted or fixed to the floor or a table.

Flywheel - Flywheels include flywheels, balance wheels, and flywheel pulleys mounted and revolving on crankshaft platform used for oiling, maintenance, running adjustment, or repair work, but not as a passageway.

Guard - An engineering control that uses either fixed or adjustable barriers to prevent personnel from contacting the moving parts of machinery or equipment.

Interlocking - A type of guard that, when opened or removed, causes the machine's cycling mechanism or power to automatically shut off or disengage; the machine cannot be cycled or started until the guard is back in place.

Machine - An assemblage of parts that transmit forces, motion, and energy in a predetermined manner for performing a task.

Nip-Point Belt and Pulley Guard - A nip-point belt and pulley guard is a device that encloses the pulley and is provided with rounded or rolled edge slots through which the belt or pulley passes.

Point of Operation - The area on a machine where work is actually being performed upon the material being processed. On some machines, there may be more than one point of operation.

Power transmission equipment - Horizontal or vertical belts or shafts, pulleys, gears, sprockets, couplings, chains, clutches, connecting rods, flywheels, and other such equipment.

Prime Movers - Include steam, gas, oil, and air engines, motors, steam and hydraulic turbines, and other equipment used as a source of power.

### ***Program Evaluation***

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The company Machine Guarding safety program will be reviewed on a yearly basis. The company will evaluate the effectiveness of the program, and correct any deficiencies discovered. Employees will have an opportunity to review and comment on this program. Program reviews will also be conducted whenever any incident causes the company to question the effectiveness of the program.



## Housekeeping at Construction Sites Policy

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## *Purpose*

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Construction sites can present many hazards to employees when they are performing construction-related activities. Keeping a construction site relatively clean of debris can further reduce hazards. The benefits of good housekeeping far exceed the small additional effort required to establish good housekeeping practices at a construction site. Good housekeeping does more than prevent injuries - it can save you time, and it can keep your tools from being lost, damaged, or destroyed. Spending just 5 minutes picking up debris could prevent an injury that keeps a co-employee, or yourself, off work for weeks or even months.

## *Requirement*

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It is the requirement of the state to provide a place of employment that is free from recognized hazards that cause or are likely to cause death and serious physical harm to employees or the public. Therefore, all employees on construction sites will practice good housekeeping to further reduce hazards to employees. When construction hazards exist that cannot be eliminated, then engineering practices, administrative practices, safe work practices, Personal Protective Equipment (PPE), and proper training regarding housekeeping will be implemented. These measures will be implemented to minimize those hazards to ensure the safety of employees and the public.

Listed below are the general housekeeping rules:

- a. All walking/working surfaces shall be kept clean and dry.
- b. Do not allow debris to accumulate.
- c. All stored materials will be neatly stacked.
- d. All containers, when not in use, will be sealed.
- e. No objects will be left unattended on stairways.
- f. Entrances and exits will be properly marked and NOT blocked.
- g. Form and scrap lumber with protruding nails and all other debris shall be kept reasonably cleared from work areas.
- h. Flammable or hazardous wastes must be placed in covered containers separate from normal debris.

- i. Material storage areas and walkways on the construction site shall be maintained free of dangerous depressions, obstructions, and debris.

## *Reference*

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This safety requirement and procedure is established in accordance with Occupational Safety and Health Standards for Construction Industry ([29 CFR 1926.25](#)).

### Definitions

Debris: Unusable or unwanted construction waste material<sup>[1]</sup><sub>[SEP]</sub> Form Lumber: Lumber that is used to contain liquid concrete into defined shapes until the concrete hardens.

Hazardous Waste: Waste that is either toxic to humans or to the environment

## *General Provisions*

This section details the provisions of this safety requirement and procedure with each provision discussed in a separate subsection. These provisions are:

- Training<sup>[1]</sup><sub>[SEP]</sub>
- Construction Scrap and Debris
- Construction Waste Disposal

## *Training*

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Employees will be trained to work safely on construction sites by following good housekeeping practices. Employees will be trained in:

- The importance of housekeeping
- The benefits of housekeeping

## *Workplace Program Requirements for Safety and Health*

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Employees will be trained at time of initial employment or assignment. And more site specific plans will be covered in tool box safety meetings.

### *Construction Scrap and Debris*

---

Scrap material and debris generated during construction usually consist of:

- Non-combustible scrap material and debris
- Combustible scrap material and debris

Non-combustible scrap material and debris that consist of form and scrap lumber with protruding nails, and all other debris, must be kept cleared from work areas, passageways, and stairs, and from around buildings or other structures.

Nails should be removed from used lumber before stacking. Combustible scrap and debris must be removed at regular intervals during the course of construction without increasing the hazard exposure to employees who remove such debris.

### *Construction Waste Disposal*

---

All construction waste must first be collected into containers before disposal. The categories of construction waste generated at a construction site include:

- General waste and trash (non-toxic, non-hazardous)
- Hazardous waste

Additional separate containers must be provided with lids for hazardous wastes to prevent sparks or other ignition sources from coming into contact with hazardous waste. Hazardous wastes can include used oil, used oil filters, oily rags and flammable wastes as well as caustics, acids, harmful dusts, etc.

Absorbent that is used to collect incidental used oil spills and oily rags can be disposed of in waste collection dumpsters. Used oil filters must be drained of oil before they can be disposed into separate waste containers.



# **Personal Protective Equipment**

## **Company Policy**

**DATE**

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## **Purpose**

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The Personal Protective Equipment Plan provides direction to managers, supervisors, and employees about their responsibilities in the selection, use, care and disposal of personal protective equipment.

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## **Program Responsibilities**

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### **Management**

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Management has the following responsibilities:

1. Establish a written company personal protective equipment policy that outlines the requirements for selection and use of personal protective equipment.
2. Provide personal protective equipment at no cost to employees.
3. Prioritize management and engineering controls for the elimination of work hazards. PPE should only be required when these methods are not feasible.
4. Perform hazard analysis to determine the appropriate personal protective equipment.
5. Provide training to employees on the use of personal protective equipment.
6. Use signs and other techniques to inform employees of PPE requirements.
7. Designate a PPE program administrator.
8. Ensure that workplace PPE evaluations are performed at least annually.

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## **PPE Program Administrator**

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The PPE Program Administrator is Keith Owen and KARM Safety Solutions. The program administrator has the following responsibilities.

1. To administer OWEN Construction PPE program.
  2. To facilitate communication between employees, supervisors, and management on PPE issues.
  3. To ensure OWEN Construction is adhering to this PPE policy by performing periodic inspections and audits.
  4. To coordinate or provide training to supervisors and employees on PPE use and requirements.
  5. To assist supervisors in procuring proper PPE.
  6. To provide signs and other PPE awareness tools (Tail gate safety meetings).
  7. To review this written policy periodically for effectiveness.
-

## **Supervisors**

---

Supervisors have the following responsibilities:

1. Conduct job hazard analysis to assess the need for personal protective equipment.
2. Certify in writing the tasks evaluated, hazards found, and actions recommended.
3. Enforce PPE and safety rules.
4. Select appropriate PPE for the work process.
5. Include employees in the evaluation process for selecting appropriate PPE.

## **Employees**

---

Employees have the following responsibilities:

1. To work in accordance with company safety policies.
2. To use and wear all required personal protective equipment.
3. To inspect PPE before every use.
4. To discard worn or defective PPE.
5. To give supervisors feedback about the fit, comfort, and suitability of the PPE that is selected.
6. To immediately report any safety incidents.

## **The Hazard Control Hierarchy**

---

Personal protective equipment may only be used when there are no feasible engineering or administrative alternatives to eliminate the hazard. When evaluating existing hazards and creating recommendations for abatement, employees will utilize the hazard control hierarchy.

## **Engineering Controls**

---

Engineering controls is the preferred method for dealing with hazards. Engineering controls are changes made to the work environment that eliminates the hazard.

Engineering controls can include:

1. Eliminating the use of chemicals or hazardous substances in a work process.
2. Benching trenches.
3. Adding protective shielding in areas with electrical hazards (overhead).
4. Use of increased ventilation to eliminate exposure hazards in trenches or confined spaces.

## **Administrative Controls**

---

If administrative controls cannot be implemented, administrative controls will be considered. These may include:

1. De-energizing equipment before work or inspections are done.
2. Using work schedules to minimize exposure when traffic is lighter or other contractors are not working in the area.
3. Scheduling work for times where hazards are lower, such as moving work in hot weather to a cooler time of day.
4. Moving the work to a safer location ie servicing equipment.

## **PPE Selection**

### **PPE Evaluation**

---

OWEN Construction will evaluate PPE requirements at least annually. High hazard work areas will have the PPE requirements evaluated more frequently. The work areas will be evaluated in accordance with the following schedule:

| <b>Work Area or Job site</b> | <b>Evaluated</b>                       |
|------------------------------|----------------------------------------|
| <b>New Job Sites</b>         | <b>At start of a new job</b>           |
| <b>When required</b>         | <b>If employee injuries warrant it</b> |
|                              |                                        |
|                              |                                        |
|                              |                                        |
|                              |                                        |
|                              |                                        |

If there is any indication the PPE is inadequate, PPE requirements must be immediately evaluated. The PPE Program Administrator may perform PPE evaluations more frequently if deemed necessary,

## Eye and Face Protection

---

Employees must use appropriate eye or face protection when exposed to eye or face hazards from flying particles, cutting pipe, liquid chemicals, pipe taps, chemical gases or vapors, or potentially injurious light radiation laser beams.

Eye and Face Protection Must comply with any of the following consensus standards:

1. ANSI Z87.1-2003
2. ANSI Z87.1-1989 R-1989
3. ANSI Z87.1-1989

## Eye and Face Protection Assignment

---

| Type of PPE    | Location                                     | Work Process                                                                                        |
|----------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Safety Glasses | When required due to type of work being done | Grinding, hammering and any time there is potential for flying debris, Grinding or cutting concrete |
| Safety Glasses | On jobsites where it is required             |                                                                                                     |
|                |                                              |                                                                                                     |
|                |                                              |                                                                                                     |
|                |                                              |                                                                                                     |

## Head Protection

---

Employees who work in areas where there is a potential for head injury from falling objects must wear head protection.

Head protection must comply with any of the following consensus standards:

1. ANSI Z89.1-2009
2. ANSI Z89.1-2003
3. ANSI Z89.1-1997

## Head Protection Assignment

---

| Type of PPE | Location                   | Work Process                                                                        |
|-------------|----------------------------|-------------------------------------------------------------------------------------|
| Hard Hat    | Where required on job site | When objects might fall or when working under other workers, when in open trenches. |
|             |                            |                                                                                     |
|             |                            |                                                                                     |
|             |                            |                                                                                     |
|             |                            |                                                                                     |

## Foot Protection

---

Protective footwear must be worn when working in areas where there is a danger of foot injuries due to falling or rolling objects, objects piercing the sole, or where employees' feet are exposed to electrical hazards.

Foot protection must comply with one of these consensus standards.

1. ASTM F-2412-2005
2. ANSI Z41-1999
3. ANSI Z41-1991

## Foot Protection Assignment

---

| Type of PPE                                                 | Work Location | Work Process                |
|-------------------------------------------------------------|---------------|-----------------------------|
| Safety shoes must be compliant with ANSI Z41-1991 standards | All jobsites  | All types while on job site |
|                                                             |               |                             |
|                                                             |               |                             |
|                                                             |               |                             |
|                                                             |               |                             |

## Hand Protection

---

Employees must use appropriate hand protection when their hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns and harmful temperature extremes. Supervisors must base the selection of hand protection on evaluation of the performance characteristics of the hand protection relative to the specific tasks to be performed, conditions present, duration of use and the hazards and potential hazards identified.

---

## Hand Protection Assignment

---

| Type of PPE | Location           | Work Process                                                         |
|-------------|--------------------|----------------------------------------------------------------------|
| Gloves      | Shop and Job sites | Working with cables, lumber, hazardous materials, cement, glue, oil, |
|             |                    |                                                                      |
|             |                    |                                                                      |
|             |                    |                                                                      |
|             |                    |                                                                      |

## Protective Clothing

---

Employees will wear protective clothing when required by the hazard.

## Protective Clothing Assignment

---

| Type of PPE  | Work Location              | Process                    |
|--------------|----------------------------|----------------------------|
| Safety vests | Working in traffic areas   | Working close to road ways |
| Long pants   | On job sites when required | Open ditches               |
|              |                            |                            |
|              |                            |                            |
|              |                            |                            |

## **Respiratory Protection**

---

Employees will wear appropriate respiratory protection when adequate ventilation or substitution with non-toxic chemicals, etc., is not possible or feasible. Respirator protection must comply with ANSI Z288.2-1969 and provisions detailed in 29 CFR 1910.134.

Respirator protection is a complex requirement. The policies for respiratory protection are described in OWEN Construction Respirator Protection Program. Currently there is no need for a respirator program.

## **Respiratory Protection Assignment**

---

| <b>Type of PPE</b> | <b>Work Location</b>     | <b>Work Process</b>                    |
|--------------------|--------------------------|----------------------------------------|
| Nuisance mask      | Job sites where required | Where there is non-toxic dust, pollen, |
|                    |                          |                                        |
|                    |                          |                                        |
|                    |                          |                                        |
|                    |                          |                                        |

## **Fall Protection**

---

Fall protection is a complex requirement. The policies for the use of fall protection in the workplace are described in OWEN Construction Fall Protection Program (at this time we are not at risk of falls as our work is ground level).

## **Fall Protection Assignment**

---

| <b>Type of PPE</b> | <b>Work Location</b> | <b>Work Process</b> |
|--------------------|----------------------|---------------------|
| NA                 |                      |                     |
|                    |                      |                     |
|                    |                      |                     |

## **PPE Operating Procedure for Employees**

---

### **1. Select the Appropriate PPE**

---

Employees should select the PPE that is appropriate for the hazard. The work area should be labeled with the PPE that is required or a safety meeting will cover it. If there are any questions, consult a supervisor.

### **2. Inspect the PPE prior to Use**

---

PPE must be inspected prior to each use. OWEN Construction will provide training on the proper maintenance and inspection of PPE. If there is a problem with the PPE, it may not be used. Remember, if there is any doubt about its effectiveness, Do not use it.

### **3. Don the PPE**

---

PPE should be put on in accordance with the manufacturer's instructions. Test the PPE to make sure that it fits properly and provides a proper barrier to the hazard.

### **4. Wear the PPE**

---

PPE should not inhibit for ability to work. If a task cannot be done while using the PPE, do not attempt it. Ask a supervisor for help. If there is any indication that the PPE has failed, immediately notify a supervisor.

### **5. Remove and Store the PPE**

---

Do not remove the PPE until you have left the hazard area. Reusable PPE should be cleaned and placed into the appropriate storage location. Disposable PPE should be placed in the proper container.

## **PPE Training Requirements**

---

Train exposed employees before they are assigned to the hazardous task. Training must include:

1. When PPE is necessary.
2. What PPE is necessary.
3. How to properly don, doff, adjust, and wear PPE.
4. The limitations of the PPE.
5. The proper care, maintenance, useful life, and disposal of PPE.

After the employee(s) demonstrate correct use, care, and disposal procedures of the PPE, the supervisor and employee will certify completion of training.

## **Monitoring and Review**

---

Supervisors will monitor worksite tasks for changes in, or the introduction of new hazards. If new hazards are discovered, they will conduct a task analysis for appropriate PPE. A worksite analysis will be conducted at least annually for each task that requires employees to use PPE.

The PPE program administrator will monitor the effectiveness of this plan and make recommendations to management to improve the plan. This PPE written policy will be reviewed at least annually for effectiveness.



# Power Actuated Tools Policy

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## **Purpose**

---

The management of OWEN Construction Inc. are committed to preventing accidents and ensuring the safety and health of our employees. We will comply with all applicable federal and state health and safety rules and provide a safe, healthful environment for all our employees. To ensure that information about the dangers of Power Actuated tools used by, OWEN Construction Inc. is known by all affected employees, the following information program has been established. Under this program, employees will be informed of the contents of the OSHA Power-actuated tools standard 1926.302 and 1910.243. To protect employees in the work area, safe handling procedures and protective measures.

This written power-actuated tool policy will be available at the following location for review by all employees: Main Office.

## **Program Responsibilities**

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### **Management**

---

Management has the following responsibilities:

1. To establish guidelines for proper use of Power-actuated tools that meets the need of the company and is compliant with OSHA and local regulations.
2. To ensure that employees are provided with the proper training for safe use.
3. To designate an employee to administrate and supervise the program.
4. To provide training to employees on the safe use of power-actuated tools use.
5. To ensure the company is operating in accordance with this policy by performing periodic reviews and audits.
6. To review this safety policy for effectiveness periodically and when program deficiencies are discovered.

### **Supervisor**

---

The company power-actuated tool Program Supervisor is Keith Owen and Johnny Sladick and can be contacted at Keith 503-932-4176 or Johnny 503-932-4120. The Power-actuated tools Supervisor has the following responsibilities:

1. To supervise the implementation and execution of the power-actuated tools program.
2. To provide or coordinate power-actuated tools training for employees.
3. To ensure that only trained employees are allowed to operate the tool.
4. To schedule periodic audits to monitor program effectiveness.
5. To ensure that their functional areas have the appropriate warnings when tools in use.
6. To make sure no employees work near power-actuated tools without the proper PPE.
7. To provide communication between employees and management on safety issues.

## Employees

---

Employees have the following responsibilities:

1. To attend required safety training classes prior to the use of a power-actuated tool.
2. To make sure that they wear the proper safety PPE when using or in the area where power-actuated guns are being used.
3. PPE required is Safety Glasses, Hearing Protection.

## Requirements for using Power-actuated tools

---

The Site Supervisor will verify that employees using power-actuated tools are trained in their use and the training is documented.

Workers must be trained to operate the tool they intend to use.

Handle the tool with the same respect and safety precautions as you would a gun or firearm.

Only load the tool just before use.

Never leave a loaded tool lying around.

## Testing and Care

---

Tools must be tested each day before loading them to ensure they are in proper working condition. Use the testing methods recommended by the manufacture.

Clean and maintain tools according to manufacturer's recommendations.

Tag defective tools "OUT OF SERVICE" and remove them from service until they are repaired.

## Storage of Tools

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Store tools and cartridge in designated areas where un-authorized use can be prohibited.

Always store gun un-loaded to prevent accidental discharge

## Training Requirements

---

The Keith Owen will coordinate the Power-actuated tool Training program and will ensure that its elements are carried out. Prior to starting work, each new employee of OWEN Construction Inc. who will operate a powder operated tool, will attend a health and safety orientation and will receive information and training.

All training needs to be documented and stored in the employee-training manual.

### **Program Evaluation**

---

The company Power-actuated tool program will be reviewed on a yearly basis. The company will evaluate the effectiveness of the program, and correct any deficiencies discovered. Employees will have an opportunity to review and comment on this program. Program reviews will also be conducted whenever any incident causes the company to question the effectiveness of the program.



## Hand and Power Tool Policy

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## ***Purpose***

---

The purpose of this program is to establish the policies and requirements for using power hand tools. OWEN Construction Inc. is committed to providing a safe work environment for all employees. All employees who are involved with the construction, usage, or maintenance of power hand tools on the construction site must be familiar with the policies of this program.

Additionally, they are tasked to identify and address regulatory requirements. In that spirit, this Power Hand Tool Safety Policy has been developed to protect employees by ensuring that all employees understand safe Power hand Tool use and practice before employees perform servicing and maintenance activities. This policy is intended to meet the Occupational Safety and Health Requirements for General Industry outlined in 29 CFR 1910.241.

## ***SCOPE***

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This policy applies to all OWEN Construction Inc. employees regardless of status or type of employment.

## ***APPLICATION***

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This written policy outlines responsibilities, training, specific procedures and inspections with regard to Power Hand Tool Safety.

## ***RESPONSIBILITIES***

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Management shall be responsible for the implementation of the Power Hand Tool Safety Policy as needed as well as retention and maintenance of equipment manuals. Employees shall have training in understanding the significance of implementing the procedures. Employees will use the Power Hand Tool Safety procedures when working on or with Power Hand Tools, etc. Management shall be responsible for training record keeping and record retention.

## ***TRAINING***

---

OWEN Construction Inc. shall provide general training and the Supervisors shall provide job-specific training as needed so employees understand the purpose and function of the program (knowledge, skills, application, use, maintenance) and shall include the following:

Training shall include:

1. How to select the proper tool for the job [L][SEP]
2. How to use these tools properly [L][SEP]
3. Procedures for inspection of tools [L][SEP]
4. Procedures for storage of tools [L][SEP]
5. Procedures for repair of faulty tools [L][SEP](tag it and send for repair)
6. The importance of planning jobs ahead so that the correct tools are available

### ***Retraining:***

---

Retraining shall reestablish proficiency and introduce new or revised methods

1. There shall be retraining with any change in job assignments, change in machines, [L][SEP]equipment or process that presents a new hazard or a change in procedures [L][SEP]
2. Retrain when inspection reveals a need, or whenever the employer sees a need [L][SEP]

### ***SPECIFIC PROCEDURES***

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OSHA recognized five categories of powered operated hand tools.

1. Electric power operated tools [L][SEP]
2. Pneumatic power tools [L][SEP]
3. Fuel powered tools [L][SEP]
4. Hydraulic power tools [L][SEP]
5. Power-actuated tools [L][SEP]

Each employer is responsible for the safe condition of tools and equipment used by employees. This includes tools and equipment, which may be furnished by

employees.

### *General Safe Work Practices*

---

1. Wear safety glasses with side shields or other equivalent eye protection when using hand or portable power tools. [L] [SEP]
2. Use the right tool of the job [L] [SEP]
3. Inspect tools before use. [L] [SEP]
4. Lockout and/or Tag out defective tools. Do not use damaged tools [L] [SEP]
5. Know how to use each tool properly [L] [SEP]
6. Carry tools properly and store them in a safe manner [L] [SEP]

### *Electric Tools*

---

1. All electric power tools shall be effectively grounded except the double insulated and cordless type [L] [SEP]
2. Electric cords shall be inspected periodically and kept in good condition. Heavy-duty plugs that clamp to the cord should be used to prevent strain on the current-carrying parts if the cord is accidentally pulled [L] [SEP]
3. Electric saw guards should be checked frequently to be sure it operates freely and encloses the teeth completely when it is not cutting [L] [SEP]
4. Refer to Lockout/ Tag Out Procedures for defective equipment

[L] [SEP]

### *Abrasive Wheels and Tools*

---

1. Power- all grinding machines shall be supplied ample power to maintain the spindle speed at safe levels under all normal operating conditions. [L] [SEP]
2. Guarding:
  - i. Must be equipped with safety guards approved by the ANSI of the use, care and protection of abrasive wheels [L] [SEP]

- ii. Safety guards shall be strong enough to withstand the effect of a bursting wheel. [L][SEP]
- iii. Guards shall be mounted such to maintain proper alignment with the wheel. The [L][SEP]guard and its fastenings shall be of sufficient strength to retain fragments of the [L][SEP]wheel in case of accidental breakage. [L][SEP]
- iv. The maximum angular exposure of the grinding wheel periphery and sides shall [L][SEP]not exceed the recommendations set forth in 29 CFR 1910.215
- v. All abrasive wheels shall be closely inspected and ring-tested before mounting to ensure that they are free from cracks and defects. [L][SEP]

### *Pneumatic Power Tools*

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- 1. Shall be secured to the hose or whip by some positive means to prevent the tools from becoming accidentally disconnected [L][SEP]
- 2. Safety clips or retainers shall be securely installed and maintained on pneumatic impact tools to prevent attachments from being accidentally expelled. [L][SEP]
- 3. All pneumatically driven nailers, staplers and other similar equipment provided with automatic fastener feed, which operate at more than 100 psi shall have a safety device on the muzzle to prevent the tool from ejecting fasteners, unless the muzzle is in contact with the work surface [L][SEP]
- 4. Compressed air shall not be used for cleaning tools or personal purposes unless the pressure is reduced to 30 psi at the outlet nozzle [L][SEP]
- 5. The use of hoses for hoisting or lowering tools shall not be permitted [L][SEP]
- 6. Refer to Lockout/ Tag Out Procedures for defective equipment [L][SEP]

### *Fuel Powered Tools*

---

All fuel-powered tools shall be stopped while being refueled, serviced or maintained and fuel shall be transported, handled, and stored in approved & labeled safety cans. [L][SEP]

Leakage or spillage of flammable or combustible liquids shall be disposed of promptly and safely. [L][SEP]

Refer to Lockout/ Tag Out Procedures for defective equipment [L][SEP]

### *Hydraulic Power Tools*

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1. The fluid used in these power tools shall be fire-resistant and shall retain its operating characteristics at the most extreme temperatures to which it will be exposed. [L] [SEP]
2. The manufacturer's safe operating pressures for hoses, valves, pipes, filters, and other fitting shall not be exceeded. [L] [SEP]

### *Explosive Actuated Tools*

---

1. The tools shall be tested each day before loading to see that safety devices are in proper working condition. [L] [SEP]
2. Any tool found not in proper working order or one that has developed a defect during use shall be removed from service immediately and not used until properly repaired.
3. The stool shall be designed so that it cannot be fired unless it is equipped with a standard protective shield or guard. [L] [SEP]
4. The firing mechanism shall be designed so the tool cannot fire during loading or preparation to fire or if the tool is dropped while loaded. [L] [SEP]
5. Tools shall not be loaded until just prior to the intended firing time. Neither loaded nor empty tools are to be pointed at any employees. [L] [SEP]
6. Loaded tools shall not be left unattended. [L] [SEP]
7. See Powered Actuated tool policy.

### *INSPECTION*

---

1. Make periodic tool inspections for guards, frayed wires, etc. [L] [SEP]
2. Remove defective tools from service when noted during inspection. Tag it with [L] [SEP] "DANGEROUS - DO NOT USE". Do not use until tool is repaired. [L] [SEP]
3. Dispose of any tool that cannot be repaired (make sure management is aware before disposal). [L] [SEP]

## ***OCCUPATIONAL NOISE EXPOSURE***

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As set forth in 29 CFR 1910.95, the employer shall administer a continuing, effective hearing conservation program.

### ***Program Evaluation***

---

OWEN Construction Inc. Tools safety program will be reviewed on a yearly basis. OWEN Construction Inc. will evaluate the effectiveness of the program, and correct any deficiencies discovered. Employees will have an opportunity to review and comment on this program. Program reviews will also be conducted whenever any incident causes OWEN Construction Inc. to question the effectiveness of the program.



## **Job Site Inspection Policy**

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## *Purpose*

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The purpose of OWEN Construction's job site inspection policy is to control losses of human and material resources by identifying and correcting unsafe acts and conditions.

## *Policy*

---

The company will maintain a program of safety inspections at all job sites. Observations will be documented and problems corrected. Follow-up inspections will be conducted to ensure problems have been corrected employee's are not to preform work that is unsafe.

## *Responsibilities*

---

OWEN Construction Management and Supervisors are responsible for the overall operation of the program.

Supervisors are responsible for conducting ongoing informal inspections of areas where their employees are working.

Workers are responsible for participating in and contributing to the inspection program as multi employer job site change daily.

All completed inspections should be sent put in the main office.

## *Inspection Programs*

---

The purpose of the safety inspection program is to detect and address safety-related hazards and risks before the issues cause injury, property damage or environmental impact.

Safety inspections at job sites where OWEN Construction employees work should consist of five separate programs;

- Supervisor safety walks
- Supervisors' ongoing observations of their work area
- Supervisors' and workers' weekly formal mini-audits
- Management and Supervisors formal monthly inspections (of shop area)
- Equipment-specific inspections at frequencies specified by legal, insurance or manufacturer's requirements or as indicated by best practices.

A related program of contractor safety inspections co-exists with the main safety inspection program. For each contract, the safety inspection frequency by the contractor is defined in writing and communicated to the supervisors of the areas where the contract work is occurring. The contractor-performed inspection report should be copied to the applicable supervisor who reviews it and has a talk with it employees.

Where there is an incident investigation, a specific inspection of the equipment in question will be performed. That inspection protocol is covered in the "Investigations" section.

Any employee may request that management examine an issue of interest. This is not considered an inspection for the purposes of this protocol.

### *Management safety walks*

---

Management performs at least safety walks of different areas of the site monthly depending on job duration and shop walks. Observations include safety and non-safety items. Safety-related deficiencies are forwarded to appropriate corrective individuals and copied to the safety committee.

### *Supervisor informal and formal inspections*

---

In addition to the ongoing observations provided by the practice of spending the majority of their time on job sites, supervisors also perform formal weekly safety inspections of their work area, work trucks and forward deficiencies to appropriate individuals for corrective action. If there are contractors in the work area, and issues are found they should be shared. For each contractor in the supervisor's area, the contractor orientation will have defined the contractor's safety inspection frequency. The supervisor's inspection report form is put in office for review on the day of inspection. Any inspection that warrants immediate action should be communicated to management immediately and employee's should not continue work if there is a safety concern.

### *Monthly safety inspections*

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#### *Inspectors and Inspection Areas*

OWEN Construction management or designated person is to perform formal monthly safety inspection.

- Area 1 Office
- Area 2 Shop
- Area 3 OWEN Construction vehicles (review for chemicals, cleanliness)
- Area 4 Job Sites

Note that the above names are titles of the areas, not necessarily complete descriptions. Each area is inspected month.

Rotation of inspectors is intended to allow continuity of inspectors and to help bring fresh eyes into each area. Wherever practical, a supervisor should not be inspecting his or her own work area as part of the inspection, as they are performing this function elsewhere and

are not providing fresh eyes. For maximum efficiency of labour, the safety inspections are scheduled on the same day as the monthly safety meeting, occurring before that meeting.

### *Inspection Contents*

---

The inspection uses an inspection checklist. The checklist focuses on high-risk safety items in each specific area. When formal assessments have not yet been completed, the best guesses of the inspector's are used. Inspection items include observation of safe working procedures, work practices, safe working conditions of the premises, buildings, equipment and tools as well as worker interviews.

An objective of the inspection is to observe and talk with every worker encountered in the work area to gain their safety input on issues, both positive and negative. For each area, one safe work procedure and associated risk assessment are audited, with the inspector comparing the documented practice to the observed practice with the goal of improving the documentation and the actual practice.

The inspector should also select a key item of interest for the month, such as ladder safety, housekeeping, or safety policy knowledge to promote topical safety to employees. This topic may or may not be communicated to employees in advance.

### *Actionable Items*

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Items found on the safety inspection are prioritized by risk for assignment of corrective action time frames. While items with a low risk score may be considered trivial ("fix-it" or "nuisance" items), they should still be included in safety reports with a corresponding low priority assigned to their correction, because they are still deficiencies. When the monthly inspection is being performed the persons performing the inspection should address many of these lower priority items immediately. In addition, any high priority item that posed an immediate threat to worker safety must be addressed immediately.

### *Equipment-specific Inspections*

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Authorized and trained workers perform equipment-specific inspections. Examples of equipment-specific inspections include mobile equipment use inspections, weekly fire extinguisher inspections, annual fire safety equipment inspections, monthly emergency light checks, annual life safety equipment inspections, and weekly first aid equipment inventories. The completed report forms are forwarded to applicable supervisors for deficiency correction and kept on file for at least one year or five inspections, whichever is greater (unless a greater time frame is required by regulation or insurance). Safety inspections include a documentation spot check of at least two random inspectable pieces of equipment per inspection.

### *Corrective Action Tracking*

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Data from all types of safety inspection programs is input into the Corrective Action Log for tracking. A risk score is assigned if not already done during the inspection process.

By including all inspection data, including worker issues, feedback is given to the workers that their issues are being addressed.

### *Training*

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Employees who are familiar with the work process and the areas they are inspecting should do inspections. They must be given instruction/training in the inspection system and be made aware of the standards that have been established in the areas they are inspecting. This training must be documented and kept on file.

### *Program Evaluation*

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The OWEN Construction inspection program will be reviewed on a yearly basis. The company will evaluate the effectiveness of the program, and correct any deficiencies discovered. Employees will have an opportunity to review and comment on this program. Program reviews will also be conducted whenever any incident causes the company to question the effectiveness of the program.



## ***SAFETY POLICIES AND PROCEDURES***

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This manual has been developed for the protection of all employees and to help keep OWEN Construction Inc. free of accidents and injuries. It can only serve you if you use it. Each Superintendent is required to read it through and sign the form on the next page and return it to the Safety Coordinator.

This manual has been developed to meet the safety requirements outlined in the OSHA Construction Safety Orders and in particular Section 1509, Accident Prevention Plan, which incorporates the requirements of Section 3203 of the General Industry Safety Orders, and the safety program requirements under SB198. Applicable to all Federal Standards:

This safety program also meets or exceeds the requirements of the applicable FED/OSHA Standards for Construction and other applicable sections of FED/OSHA i.e., Hazard Communication, Respiratory Protection, and other elements as noted in this manual.

Where this manual may refer to OSHA for compliance, the section can also be said to comply with FED/OSHA standards.

Set forth in this manual is a set of instructive safety rules and procedures for you to use to enhance safety performance on your job. It covers many fundamentals of accident prevention, but no single manual can be complete, and from time to time

new rules or revised rules may become necessary. These new rules or revisions will be issued to you to insert into this manual.

If you have any questions, ask your immediate supervisor or KARM Safety Solutions for assistance.

Failure to comply with the safety rules or policies may result in disciplinary action or possible discharge from your job.

It is important that all members of management provide the leadership necessary to comply with safety requirements willingly and "set a good example for others".

We believe that safety serves your best interests.

If you have any questions, voice them at the right time and place, but don't hamper the program by complaining and balking when it only will do harm.

More than anything else, safety is an attitude.

The most effective training for all concerned is the day to day example we set for one another.



## Unsafe Situation Reporting Policy

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## *Purpose*

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Identification, correction, and/or reporting of potentially unsafe or unhealthful working conditions are the responsibility of all OWEN Construction employees. Since many such conditions can be eliminated as soon as they are identified, an effective channel of communication is imperative in the development of a sound Safety Program. When unsafe or unhealthful conditions cannot be eliminated promptly by the discoverer, interim measures such as Accident Prevention Tags can be used to warn others of the hazard.

## *Scope*

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Any employee discovering an unsafe situation is expected to eliminate the situation if it is safe for them to do so within their authorization to act. For example: picking up an object (trip hazard) in a walkway, closing an unattended open file drawer, or warning someone in unsuspecting danger.

## *Employee Notification*

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- a. Upon hire and annually thereafter employees shall be informed of their responsibilities for and methods of reporting unsafe conditions as outlined in this procedure. This can be accomplished through a Toolbox Safety Meeting.
- b. Blank copies of the Unsafe Situation Report form shall be posted in areas convenient to all workplaces.

## *Procedure*

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The following procedure shall be used for submission of reports of unsafe or unhealthful conditions in the workplace. These procedures shall be used for all employee reports to management of unsafe or unhealthful conditions in the workplace or jobsite unless.

All OWEN Construction employees shall be encouraged to report unsafe or unhealthful working conditions to their immediate Supervisor either verbally or in writing. In either case:



## *Supervisors*

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- . The Supervisor receiving the report shall promptly investigate the situation and take appropriate action as prioritized here: [L] [SEP]
- . (a). Assess the seriousness of the situation (life threatening, could [L] [SEP] cause injury, could cause a mishap, non-hazardous),
- . (b). Remove persons at risk of death or injury, [L] [SEP]
- . (c). Eliminate the hazard if possible, if with in their level of authority, [L] [SEP] and if safe to do so, [L] [SEP]
- . (d). Isolate, guard, or place warnings if the hazard cannot be immediately and safely [L] [SEP] eliminated, [L] [SEP]
- . (e). Notify their immediate Supervisor and, or Management, [L] [SEP]
- . (f). Document all actions taken in accordance. [L] [SEP]
- . (2). If after taking appropriate action, the hazard is not removed, [L] [SEP] Supervisors receiving a verbal report shall complete a written Unsafe Situation Report and contact their Manager. [L] [SEP]
- . (3). If after taking appropriate action, the hazard is removed, Supervisors receiving a verbal report shall make an entry on the Unsafe Situation Report Status Log. [L] [SEP]

NOTE: Seemingly trivial Unsafe Situations do not need any documentation after corrective action, unless the cause of the condition warrants special attention, e.g., cigarette butts found at the fuel island may be from customer ash trays (no log entry) or from employees smoking (log entry needed) and warrants further investigation.

## *Employees*

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Any OWEN Construction employee may submit a written Unsafe Situation Report directly to management. [L] [SEP]

- (1) Employees who wish to remain anonymous may do so.

(2) Employees who wish to remain anonymous may leave an unsafe situation report in management's inbox.

. (3) Reprisals shall not be taken against any employee for submitting an Unsafe Situation Report. [L] [SEP]

c. Upon receipt of an Unsafe Situation Report, management shall [L] [SEP] contact the originator, if known, to acknowledge receipt, and discuss the seriousness of the reported hazard. [L] [SEP]

d. Management shall advise the affected Supervisor(s) that a hazard has been reported. [L] [SEP]

e. Management or designated person shall investigate all reports. [L] [SEP]

f. Alleged imminent danger situations shall be investigated immediately.

g. Potentially serious situations shall be investigated within 2 days. [L] [SEP]



.

Management shall take appropriate action on all reports

. Interim responses shall include the expected date for the complete [L] [SEP] response.

. The complete response shall include a description of the action [L] [SEP] taken. [L] [SEP]

. If no significant hazard is found to exist, the reply shall include the [L] [SEP] basis for the determination of no hazard. [L] [SEP]

All responses to Unsafe Situation Reports shall be posted where employee notices are normally posted using the Unsafe Situation Report Status Log found at the end of this Section. [L] [SEP]

If the originator of the Unsafe Situation Report is dissatisfied with the action taken or the response, concerns should be discussed with management.

OWEN Construction believes that its employees are one of its most important assets and there for will do everything to ensure their safety.

### *Program Evaluation*

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OWEN Construction will review this program annually to evaluate the effectiveness of the program and correct any deficiencies discovered. Employees will have an opportunity to comment on this policy.



# WELDING SAFETY POLICY

OSHA Standards -29 CFR  
General industry (29 CFR 1910.251-257)  
Construction Industry (29 CFR 1926.350-.354)

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## ***PURPOSE***

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The purpose of this safety policy and procedure is to establish guidelines and procedures through which OWEN Construction Inc. employees receive the training and proper equipment needed to safely perform welding operations.

## ***SCOPE AND APPLICABILITY***

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The welding process joins metal parts. Welding processes require heat and sometimes other substances to produce the weld. Byproducts resulting from the welding process include fumes and gases which can be serious health hazards to employees. Additionally, safety hazards can exist such as the potential for fire or explosion and injuries from arc radiation, electrical shock, or materials handling. This safety policy and procedure provides guidelines for safely performing welding operations. It presents provisions for training, discussion on types of welding, safe work practices, and employee protection requirements. It also presents critical details on hot work permits, work in confined spaces, ventilation requirements when performing welding operations, and inspection requirements. This document also details the areas of responsibility for Project Manager, supervisors, employees. This safety policy and procedure affects all employees who are exposed by their job duties to welding and torch cutting operations. These welding and torch cutting operations occur at, but are not limited to equipment fabrication shops, and construction operations.

## ***REFERENCE***

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This safety policy and procedure is established in accordance with Occupational Safety and Health Standards for General industry (29 CFR 1910.251-257) and Occupational Safety and Health Standards for Construction Industry (29 CFR 1926.350-.354).

## ***POLICY***

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It is the policy of OWEN Construction Inc. to provide a place of employment that is free from recognized hazards that cause or are likely to cause death or serious physical harm to employees or the public. Therefore, welding operations will be performed only by authorized and trained employees. When welding hazards exist that cannot be eliminated, then engineering practices, administrative practices, safe work practices, Personal Protective Equipment (PPE), and proper training regarding Welding will be implemented. These measures will be implemented to minimize those hazards to ensure the safety of employees and the public.

## ***GENERAL RESPONSIBILITIES***

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It is the responsibility of the program administrator to evaluate the hazard assessment for the plan and to annually review the effectiveness of this program. It is the responsibility of each Project Manager, to purchase welding supplies, related equipment and the appropriate PPE to be worn during welding operations. It is the responsibility of each supervisor and employee to ensure implementation of OWEN Construction Inc. safety policy and procedure on Welding. It is also the responsibility of each OWEN Construction Inc. employee to report immediately any unsafe act or condition to his or her supervisor.

Where ever possible these procedures and practices will comply with all OSHA requirements and will comply with accepted practices as outlined in nationally recognized standards for the individual discipline in which the organization is engaged.

## ***PROCEDURE***

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This section provides applicable definitions, establishes general provisions, and identifies responsibilities required by OWEN Construction Inc. safety policy and procedure on Welding.

## ***DEFINITIONS***

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**Approved** – Listed or approved by a nationally recognized testing laboratory.

**Confined Space** – A space that is not designed for human occupancy, has limited openings for entry and exit, may lack adequate ventilation, and may contain or produce dangerous air contamination.

**Hazardous** -Any act, condition, or substance which poses health and safety risks to employees.

**Hot Work Permit** -A permit allowing employees to perform work involving welding, cutting, or any task that would deplete oxygen, create toxic fumes and vapors, or create the potential for fire or explosion.

**Pulmonary** -Any body function related to the lungs.

**Welder/Welding Operator** – Any operator of electric or gas welding and cutting equipment.

## ***GENERAL PROVISIONS***

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This section details the provisions of this safety policy and procedure with each provision discussed in a separate subsection. These provisions are:

- Training

- Types of Welding
- Welding Hazards
- Safe Work Practices
- Hot Work Permits
- Employee Protection
- Work in Confined Spaces
- Inspection

## ***TRAINING***

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Employees who perform welding operations will be trained to:

- ☐ Recognize the hazards associated with various welding operations
  - ☐ Know the safe work practices for welding operations
  - ☐ Understand the importance and requirements of Hot Work Permits
  - ☐ Use the appropriate personal protective equipment (PPE) for the job
  - ☐ Recognize confined space and the requirements associated with them
  - ☐ Understand the importance of regular inspections of welding equipment, attachments, and accessories
- This training shall be made available upon initial employment or job re-assignment. Refresher training shall be provided upon the discretion of the supervisor.

## ***TYPES OF WELDING***

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Several types of welding operations are used in OWEN Construction Inc. The most common welding operations include:

- ☐ TIG
- ☐ Gas welding and cutting
- ☐ Arc welding and cutting
- ☐ Resistance welding
- ☐ Plasma

## ***WELDING HAZARDS***

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The hazards associated with welding include health and safety hazards. Health hazards are primarily respiratory hazards due to the generation of fumes and gases. Safety hazards are generally physical hazards due to the work site and conditions and materials associated with the work site. Health hazards associated with the generation of fumes and gases depend upon the welding process, the base material, the filler material, and the shielding gas if any. Health hazards include exposure to:

- Toxic gases
- Primary pulmonary gases

- Non-pulmonary gases
- Particulate matter
- Irritants and toxic inhalants

Safety hazards associated with welding operations include:

- Fire
- Proximity to combustible materials
- Hazardous locations (rooms containing flammable or combustible vapors)
- Closed containers that have held flammable liquids or other combustibles
- Electric shock (arc welding)
- Infrared and ultraviolet eye damage

APPENDIX A – presents precautions that should be followed to minimize, control, or eliminate these safety hazards.

#### SAFE WORK PRACTICES

Safe work practices for all welding operations include:

- Placing work at an optimal height to avoid back strain or shoulder fatigue
- Using fall protection equipment for work on elevated surfaces more than 6 feet above the floor or ground surface
- Wearing personal protective equipment (PPE) as applicable for the work conditions
- Following special precautions when welding or cutting in a confined space
- Posting warning signs to mark just-completed welding or cutting surfaces
- Following safe housekeeping principles
- Using equipment as directed by the manufacturer instructions or practices
- Removing any butane lighters, matches, or other combustibles from pockets prior to performing work
- Not performing welding work with oily clothing (Leathers may need to be worn over clothing)
- Following fire protection and prevention practices during the welding operation
- Using proper ventilation techniques during welding operations.

### ***EMPLOYEE PROTECTION***

---

Employee protection during welding operations must include:

- Safeguards and provisions for fall protection
- Tripping hazard prevention
- Eye Protection
- Protection from arc welding rays
- Protective clothing
- Protection from electrical shock hazards

## ***SPECIFIC RESPONSIBILITIES***

---

Supervisors are responsible for PPE and training for welders. They will also be responsible for identifying the employees affected by this safety policy and procedure. Will obtain and coordinate the required training for the affected employees. Will also ensure compliance with this safety policy and procedure through their auditing process. Are also responsible for ensuring that all welding equipment, including cables, lines and any accessories, are in good working condition. If any indication of damaged equipment is present such as broken or cut insulation on cable, etc. the equipment removed from service and have it repaired.

## ***EMPLOYEES***

---

Employees who are involved in welding operations are responsible for ensuring that all fire prevention and fire protection measures have been taken before any torch cutting or welding begins. Employees are responsible for ensuring that all PPE's is worn properly for the specific hazard involved and that all equipment is in good working condition. Each employee is responsible for bringing hazards to the attention of his or her supervisor for correction as soon as the hazard is recognized.

## ***APPENDIX A: SAFETY HAZRDS PRECAUTIONS***

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☐ Welding should be done in a permanent location that can be designed to provide maximum safety and fire protections. Otherwise, if the welding and cutting equipment is portable the site should be inspected to determine what fire protection equipment is necessary. See OSHA # 1910.157, Fire Protection, for related details.

☐ Where welding is done near combustible materials, special precautions are necessary to prevent sparks or hot slag from reaching such material and starting fires. If the work cannot be removed, the combustible material should be moved a safe distance away.

☐ Welding or cutting activities should not be allowed in or near rooms containing flammable or combustible vapors, liquids or dusts. If welding is required in these locations, all of the surrounding premises should be thoroughly ventilated and have frequent gas testing performed.

☐ Closed containers that have held flammable liquids or other combustibles should be thoroughly cleaned before welding or cutting.

## ***APPENDIX B: FIRE PROTECTION AND PREVENTION PRACTICES***

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☑ Supervisors will inspect areas where welding or torch cutting is to take place and take proper measures to ensure fire hazards are eliminated or protected against. If combustibles are within 35 feet of the welding area, welders will use guards or shields to contain sparks and slag.

☑ Employees trained as fire watchers will be available in areas where welding is taking place.

Appropriate fire extinguishers will be immediately available and accessible at the welding operation.

☑ No welding, torch cutting or heating shall be done where flammable paints, the presence of other flammable compounds, or heavy dust concentrations exist.

## ***APPENDIX C: VENTILATION GUIDELINES FOR WELDING OPERATIONS***

---

1. Mechanical ventilation will be provided for welders and helpers when:

- Welding is being performed in a space less than 10,000 cubic feet per welder.
- A room has a ceiling height less than 16 feet
- A confined space or welding space contains partitions, balconies, or other structural barriers to the extent that obstruct cross ventilation.

2. The minimum rate for mechanical ventilation will be 2,000 cubic feet per minute per welder unless exhaust hoods or air-supplied respirators are provided.

3. When using local exhaust hoods, they will be placed as close to the operation as possible. The exhaust hood will provide a rate of 100 linear feet per minute of air flow in the welding zone.

4. Local exhaust ventilation or air-supplied respirators will be used when welding or torch cutting on coated metals (e.g., zinc, mercury, cadmium, lead, etc.) indoors or in confined spaces. Outdoors operations shall be done using respiratory protective equipment.

---

### **Safety Checklist**

Yes No

Yes No Have all flammable or combustible materials been removed from the work area (35 foot radius)?

Yes No If any flammables or combustibles cannot be removed, have they been covered by fire resistant shields or tarpaulins?

Yes No Is adequate firefighting equipment readily available?

Yes No Have vulnerable areas of combustible floors and/or roofs been wet-down or properly covered?

Yes No Have wall and/or floor openings been properly covered?

Yes No Is the hot work equipment in good working condition?  
Yes No Is a Confined Space Permit required?  
Yes No If pressurized lines or lines containing hazardous gases or liquids must be broken or cut, have the appropriate safety measures been taken?  
Yes No Are Lock-Out Tag-Out Procedures required?

## ***APPENDIX E: CRITERIA FOR PERSONAL PROTECTIVE EQUIPMENT***

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### **Eye Protection Selection**

Arc Welding and Arc Cutting – Helmets and hand held shields shall be used by personnel viewing the arc during welding and cutting operations. Welding helmets shall be worn during arc welding and cutting operations to provide protection from injurious rays from adjacent work and from flying objects. The welding helmet may have either clear or colored glass, depending upon the amount of exposure to adjacent. Helpers shall be provided with proper eye protection in accordance with ANSI Standard Z87.1.

**Gas Welding and Oxygen Cutting** – Goggles or other suitable eye protection shall be used during all gas welding or oxygen-cutting operations. Spectacles with suitable filter lenses and without side shields are permitted for use during gas welding operations on light work, for torch brazing, or for inspection. Common sunglasses or safety issue sunglasses are not considered an acceptable alternative.

**Resistance Welding and Brazing** – All operators of resistance welding or resistance brazing equipment and their helpers shall use face shields, spectacles, or goggles, depending on the particular job, to protect their faces or eyes, as required.

**Specifications for Protectors** Material Properties – Helmets and hand-held shield bodies shall be made of material which is thermally and electrically insulating, non-combustible or self-extinguishing, and opaque to visible ultra-violet, and infrared radiation.

**Gloves** – All welders and oxygen cutters shall wear protective gloves.

- For light work, durable flame-resistant cotton gloves should be used and for heavier work, leather or other suitable durable flame-resistant materials should be used. Insulated linings should be used to protect areas exposed to high radiant energy.

**Aprons** – Aprons made of leather or other suitable flame-resistant materials should be used when additional

protection against sparks and radiant energy is desired.

**Hearing Conservation** Program, and using the recommended type of hearing protector.

### ***SUBSTANCE IDENTIFICATION***

---

A. Substance: Pure lead (Pb) is a heavy metal at room temperature and pressure and is a basic chemical element. It can combine with various other substances to form numerous lead compounds.

B. Compounds Covered by the Standard: The word "lead" when used in this standard means elemental lead, all inorganic lead compounds and a class of organic lead compounds called lead soaps. This standard does not apply to other organic lead compounds.

C. Uses: Exposure to lead occurs in at least 120 different occupations, including primary and secondary lead smelting, lead storage battery manufacturing, lead pigment manufacturing and use, solder manufacturing and use, shipbuilding and ship repairing, auto manufacturing, and printing.

D. Permissible Exposure: The Permissible Exposure Limit (PEL) set by the standard is 50 micrograms of lead per cubic meter of air (50 ug/m<sup>3</sup>), averaged over an 8-hour workday.

E. Action Level: The standard establishes an action level of 30 micrograms per cubic meter of air (30 ug/m<sup>3</sup>), time weighted average, based on an 8-hour work-day. The action level initiates several requirements of the standard, such as exposure monitoring, medical surveillance, and training and education.

### ***HEALTH HAZARD DATA***

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A. Ways in which lead enters your body. When absorbed into your body in certain doses lead is a toxic substance. The object of the lead standard is to prevent absorption of harmful quantities of lead. The standard is intended to protect you not only from the immediate toxic effects of lead, but also from the serious toxic effects that may not become apparent until years of exposure have passed. Lead can be absorbed into your body by inhalation (breathing) and ingestion (eating). Lead (except for certain organic lead compounds not covered by the standard, such as tetraethyl lead) is not absorbed through your skin. When lead is scattered in the air as a dust, fume or mist it can be inhaled and absorbed through your lungs and upper respiratory tract. Inhalation of airborne lead is generally the most important source of occupational lead absorption. You can also absorb lead through your digestive system if lead gets into your mouth and is swallowed. If you handle food, cigarettes, chewing tobacco, or make-up which have lead on them or handle them with hands contaminated with lead, this will contribute to ingestion. A significant portion of the lead that you inhale or ingest gets into your blood stream. Once in your blood

stream, lead is circulated throughout your body and stored in various organs and body tissues. Some of this lead is quickly filtered out of your body and excreted, but some remains in the blood and other tissues. As exposure to lead continues, the amount stored in your body will increase if you are absorbing more lead than your body is excreting. Even though you may not be aware of any immediate symptoms of disease, this lead stored in your tissues can be slowly causing irreversible damage, first to individual cells, then to your organs and whole body systems.



# Respiratory Protection Program

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## ***PURPOSE***

---

This respiratory protection program has been established to ensure that all OWEN Construction employees are protected against atmospheric hazards in the workplace and that all OWEN Construction employees are properly trained in the proper selection, care and use of respiratory protection.

OWEN Construction, is committed to protecting its employees from harmful dusts, fumes, mists, gases and vapors. This shall be accomplished as far as feasible by implementing engineering controls (e.g., substitution of less toxic chemicals, general and local ventilation, etc.). When engineering controls cannot effectively eliminate or reduce airborne toxic concentration(s) to a safe level (below the permissible exposure level (PEL) for the chemical(s) of concern) or if an oxygen deficient atmosphere (<19.5% O<sub>2</sub>) remains present, appropriate respirators shall be used pursuant to the following requirements.

This written program is intended to implement the requirements of 29 CFR 1910.134 and to state the respiratory protection regulations. This program will be available in OWEN Construction main office.

## ***OBJECTIVE***

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The objective of this written program is to provide our employees with a usable reference and comply with federal, state and local regulations.

## ***PROHIBITIONS***

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OWEN Construction employees may only use NIOSH/MSHA approved respirators and are not authorized to give approval or suggestions for use of a non-approved respiratory device to another employee or to other contractors or client representatives.

## ***Respirator Selection***

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Each field employees if involved in a job which requires the use of NIOSH/MSHA approved air-purifying half-mask respirator with replaceable cartridges designed for the specific chemicals they will encounter in the field. Those employees involved with duties requiring full-face respirators shall also be issued one full-face NIOSH/MSHA approved air-purifying respirator (in addition to the half-face respirator).

The types of respirators issued will be based upon the following criteria:

- (1) the nature of the hazardous operation and exposures the employee may be subject to
- (2) the type of respiratory hazard (including physical properties, physiological effects on the body, concentration of toxic material or airborne concentration for radioactive material and established immediately dangerous to life or health concentrations)
- (3) the location of the hazardous area in relation to the nearest area having respirable air
- (4) the period of time the respiratory protection must be provided
- (5) the activities of workers in the hazardous area
- (6) the physical characteristics and use and limitations of the various types of respirators
- (7) respirator protection factors and maximum use concentrations

Appropriate filters and/or cartridges for air-purifying respirators shall be used based upon the concentration and contaminants of concern. The respirator selected for a given task will be specified in the Site Specific Safety and Health Plan.

### *User Instructions and Training*

---

Each OWEN Construction employee issued a respirator will be given training prior to field assignment which shall include explanation and discussions of:

- 1) the types of respiratory hazards,
- 2) engineering and administrative controls being used and the need for respirators to provide protection,
- 3) the reasons for selecting a particular type of respirator,
- 4) proper respirator uses and respirator limitations,
- 5) respirator cleaning, storage and maintenance, and
- 6) recognizing and handling emergency situations.

### *Respirator Cleaning, Sanitizing and Storage*

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Respirators shall be cleaned and sanitized between uses. Respirators assigned to individuals must be cleaned after each use. Respirators that are kept for emergency use only must be cleaned and disinfected after each use.

Prior to washing and sanitizing, remove air-purifying cartridges, filters or canisters. Wash respirator with a soft bristle brush in warm water (100-140 F) containing disinfecting personal protective cleaner. Do not use solvents, oils or baby powder in cleaning or disinfecting respirators. Rinse thoroughly in warm water.

Prepare a sanitizer solution of one-tablespoon chlorine bleach to one gallon of cold water (or one-teaspoon tincture of iodine per gallon of water). Let the respirator soak in this solution for at least one minute. Rinse respirator thoroughly with warm water and towel dry. Let the respirator air dry at room temperature in a non-contaminated atmosphere, either by suspension from a horizontal wire, or by allowing to dry on a clean surface. Check all parts for wear or deterioration. When dry, the respirator shall be reassembled and placed in a re-sealable plastic bag (i.e., "Ziploc" bag).

### *Storage*

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Respiratory equipment must be stored to protect it from dust, sunlight, heat, excessive cold or moisture, mechanical damage and chemicals. If a respirator is left unprotected on a shelf in OWEN Construction truck or in a tool cabinet, damage or deterioration of the respirator may occur, reducing its effectiveness.

Respirators must be stored separately, with the exhalation valve facing up to prevent the rubber of plastic from becoming distorted. Air-purifying respirators that are kept ready for routine or emergency use shall be stored in sealed plastic bags in individual cabinets. Each cabinet shall be labeled with the name of the employee or the size of the respirator.

### *Inspection of Respirators*

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All respirators shall be inspected routinely before and after each use. A respirator that is not routinely used but is kept for emergency use shall be inspected after each use and at least monthly to assure that it is in proper working condition. Inspect respirator and associated parts for cracks, tears or holes. Personnel requiring a new respirator shall give the old respirator to the Foreman for disposal.

Respirator inspection shall include a check of the tightness of connections and the conditions of the facepiece, headbands, valves, connecting tube and canisters. Rubber or elastomeric parts shall be inspected for pliability and signs of deterioration.

A record shall be maintained of inspection dates and findings of respirators maintained for emergency use in each job safety book on each truck.

Replacement or repairs shall only be done by experienced persons with parts specified for the respirator. No attempt shall be made to replace components or to make adjustment or repairs beyond the manufacturers recommendations. Reducing or admission valves and regulators shall be returned to the manufacturer or to a certified technician for adjustment or repair.

Below is an outline for additional guidance on respirator inspection:

## 1. Air-Purifying Respirators

### A. Rubber Facepiece - check for:

1. Excessive dirt (clean all dirt from facepiece)
2. Cracks, tears or holes (give respirator to Foreman and obtain new respirator)
3. Distortion (obtain new facepiece)
4. Stiffness of rubber (loss of flexibility)
5. Cracked, scratched or loose fitting lenses in full facepieces (replace as needed)
6. Cracked or broken air-purifying element holders, badly worn threads or missing gaskets (replace as needed)

### B. Headstraps - check for:

1. Breaks or tears (replace headstrap)
2. Loss of elasticity (replace headstrap)
3. Broken or malfunctioning buckles (replace headstrap)
4. Excessively worn serrations on the head harness which may allow facepiece to slip (replace headstrap)
5. Headgear suspension (adjust properly to fit)

### C. Inhalation and Exhalation Valves - remove cover and check for:

1. Foreign material such as detergent residue, dust particles or hair under the valve (clean with soap and warm water)
2. Cracks, tears or distortion in the valve material or valve seat (replace valve or facepiece if seat is damaged)
3. Wrong insertion of the valve body in the facepiece (reposition)
4. Cracks, chips or breaks in the valve body, particularly in the sealing surface (replace valve)
5. Missing or defective valve cover (replace valve cover)
6. Improper installation of the valve in the valve body (properly reinstall)

D. Filter Elements - check for:

1. Incorrect cartridge, canister or filter for the contaminant
2. Approval designation (NIOSH/MSHA seals on cartridges)
3. Missing or worn gaskets (replace)
4. Worn or damaged threads - both filter threads and facepiece threads (replace filter or filter holder, whichever is applicable)
5. Incorrect installation, loose connections (reinstall or tighten)
6. Cracks in outside case filter, cartridge or canister (replace)
7. Deterioration of gas mask canister harness (replace harness)
8. For end-of-life indicating canisters, check indicator window (replace if discolored)

E. Flexible Corrugated Breathing Tube (Gas Mask) - check for:

1. Cracks or holes, signs of deterioration (replace tube). Cracks can often be seen by stretching the tube.
2. Missing or loose hose clamps (obtain new clamps that are approved for respirator)
3. Broken or missing end connectors (replace tube)

2. Supplied-Air Respirators

A. Check facepiece, headstraps, valves and breathing tube (as described above for air-purifying respirators)

B. Hood, helmet, blouse or full suit, if applicable, check for:

1. Rips and torn seams (replace if unable to repair the tear adequately)
2. Headgear suspension (adjust properly to fit you)
3. Cracks or breaks in faceshield (replace faceshield)
4. Protective screen must be intact and fit correctly over the faceshield (obtain new screen)

C. Air-Supply system - check for:

1. Approval for use (NIOSH/MSHA seals and a "TC" number)
2. Breathing air quality (CGA spec G-7.1 - 1973 Grade D breathing air; less than 5mg/m<sup>3</sup> condensed hydrocarbons, 20 ppm CO and 100 ppm CO<sub>2</sub> and no objectionable odors)
3. Breaks or kinks in air supply hoses approved as part of respirator and end-fitting attachments (replace hose and/or fitting)
4. Tightness of connections
5. Proper setting of regulators and valves (consult manufacturers recommendations)

6. Correct operation of air-purifying elements and CO and/or high temperature alarms

D. Self Contained Breathing Apparatus (SCBA):

1. Check the charge on the high-pressure cylinder (recharge if less than 75% service time remains)

### *Employee Exposure*

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Project Managers and Foremen are responsible for determining potential respiratory hazard(s) prior to job start-up, inspections or emergency responses. Chemical concentrations shall be assessed with direct reading instruments whenever possible. The type of respirator selected for a task will be based upon past personal exposure monitoring results in comparison to the maximum use concentration of the respirator for chemicals with action levels, published ACGIH threshold limit values (TLVs) and/or OSHA PELs.

### *Chemical Exposure*

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Only a pressure-demand respirator with an emergency back-up escape cylinder or SCBA may be worn in immediately dangerous to life and health (IDLH) chemical concentrations. Any OWEN Construction employee who finds himself or herself in an environment where there is a potential for chemical exposure or where respiratory protection is necessary based upon an immediate threat to chemical exposure must exit the work area. The Project Manager or Foreman must determine the correct respiratory protection before donning the respirator and re-entering the environment. Chemical overexposure is not warranted in any situation. If an employee develops signs or symptoms of chemical exposure, they must report the exposure to the foreman or supervisor. The supervisor must report any type of chemical exposure to OWEN Construction Management. A determination of the concentration of the chemical(s) must be made when any employee is exposed, additionally, the exposure must be recorded in the employee's medical file by Management.

### *Suspected Exposure*

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Any employee identified in the scope of this program, including the Operations Manager, Project Manager or Foreman who schedules OWEN Construction personnel shall advise employees of the proper respiratory protection to be used for the anticipated exposure and

task. This may involve contacting the client for chemical information before determining the appropriate respiratory protection.

### *Records of Exposure*

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The federal standard in 29 CFR 1910.20 requires both employer and employees to be aware of the potential and actual exposures to hazardous chemicals related to job activity. It gives an employee the right to access and examine and copy his health related exposure. It includes environmental, personal, and related technical data such as the Material Safety Data Sheet (MSDS). This would include estimates of exposure for respirator issuance which is placed in medical records, significant exposures to include occasions when respirators must be worn to protect against toxic chemicals.

### *Bioassay*

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Bioassay may be used to determine suspected overexposure and absorption requiring treatment or review of procedures (e.g., lead, benzene, etc.)

### *Program Effectiveness*

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#### RESPONSIBILITIES

##### Management:

It will be the responsibility of OWEN Construction Supervisors to ensure proper respirators are available to all field employees, and that this program is implemented. Management shall have the following responsibilities:

1. to see that all requirements of a minimal respirator protection program are met;
2. to assure medical exams and fit tests are performed on employees before respirators are issued;
3. to assure that all employees are trained and informed of this program prior to field assignment;
4. to advise employees of unusual problems or health alerts;

5. to audit this program annually to include an evaluation of the administration, degree of implementation, and relative effectiveness. The Operations Manager together with the Safety Director will conduct the audit and update it as needed; and,
6. to assure that records pertaining to fit testing, medical surveillance, airborne tests, employee exposure and calibration of quantitative fit test equipment are maintained.

Supervisor:

It will be the responsibility of the Supervisor to ensure that all field employees receive proper instruction in fit, care, use and storage of assigned respirators prior to field assignment. The Management is available to assist the Supervisor with all decisions regarding selection of appropriate respiratory protection. The Supervisor will also ensure that all field employees are aware of the location of this written program

It will be the responsibility of the Foreman to ensure field personnel follow the Respiratory Protection Program, any non-conformance shall be reported to Management immediately. Additionally, Foreman must report to Management of any employee subjected to chemical exposure immediately. Finally, Foreman shall report of any inadequacies, malfunction or imperfections in any respiratory equipment to the Management.

Field Employees:

It will be the responsibility of the employee to comply with the Respiratory Protection Program and to maintain proper use and care of the assigned respirator. All field employees shall have the following responsibilities:

1. To use approved respirators when required.
2. To report any inadequacies, malfunction or imperfections in any respiratory protective equipment to the Foreman on the job immediately and to the Safety Committee and/or Management as soon as possible, but before the end of the work day.
3. If the employee is aware, or becomes aware of a medical/psychological condition that would preclude him or her from wearing a respirator, he or she must report the condition immediately to the Foreman.
4. Any employee who intentionally falsifies or hides significant information from a physician conducting an examination under auspices will face disciplinary action or immediate dismissal.

5. Each employee shall determine, from a competent authority, the potential exposure(s) prior to visiting a worksite, and shall only use the appropriate respiratory protection as designated in the site-specific safety and health plan.
6. Employees who must wear a respirator are expected to maintain hair and mustache styles that do not interfere with a good face/respirator seal.
7. Employees must report to Management a weight loss or gain of 20 pounds or more, of facial or dental surgery or any other circumstances that have changed the shape of his or her face since the last quantitative fit test (QNFT) was performed so that another QNFT can be performed.
8. Each employee is responsible for his or her respirator(s) care and use. The employee shall consider the following:
  - a. protection factor of the respirator
  - b. type of respirator vs. anticipated hazards
  - c. use time for cylinders, cartridges and canisters
  - d. maintaining fit test record
  - e. conducting a periodic qualitative fit test
  - f. completing a fit-check before entering a work area
  - g. avoid entering IDLH atmospheres
  - h. know emergency escape routes at the work site
  - i. use an escape respirator when conducting services in areas with a high potential of hazardous chemical releases or IDLH atmospheres.

IMPORTANT: RESPIRATORY PROTECTION IS NO BETTER THAN THE  
RESPIRATOR IN USE

### *Medical Surveillance and Fit Test*

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No person will be assigned a task requiring the use of a respirator unless it has been determined that they are physically able to perform the work and use the equipment. The occupational physician shall determine what health and physical conditions are pertinent. The respirator user's medical status will be reviewed annually in accordance with 29 CFR 1910.134.

Once it has been determined by a physician that the employee is able to wear a respirator, he or she will undergo either a quantitative fit test (QNFT) and/or qualitative fit test (QLFT). The QLFT is subjective, relying almost principally on the judgment of the wearer. Inward air leakage at the interface is detected by the wearer and by measurement equipment in the QNFT. All employees who are required to wear a respirator will receive a QNFT annually. An employee who gains or loses 20 pounds or more, who has had facial or dental surgery or any other circumstances that may have changed the shape of his or her face since the last QNFT will be required to have another QNFT performed.

All CEX employees shall perform the following activities each time a respirator is donned.

### *Positive Pressure Check*

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This check is carried out by using the hands to close the opening in the exhalation valve guard and simultaneously exhaling. If the facepiece bulges slightly and no air leaks between the facepiece and face are detected, a tight fit has been obtained. If air is detected to be leaking out between the facepiece and face, reposition the facepiece and/or readjust the tension of the headstraps. This check must be repeated until a tight seal is obtained.

### *Negative Pressure fit Check*

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To conduct this test, place the palm of the hands over the air-purifying cartridges and inhale. If the facepiece collapses slightly and no air leaks between the facepiece and face are detected, a good fit has been obtained. If air leaks are detected, reposition the facepiece and/or readjust the tension of the headstraps. This check must be repeated until a tight seal is obtained.

IMPORTANT: Positive and negative fit checks must be done every time respirator is donned.

### *Cartridge Replacement*

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Whenever the wearer experiences difficulty in breathing through the filters, or senses irritation, odor, or taste while breathing through the chemical cartridges, the cartridges and/or filters must be immediately replaced in a safe atmosphere.