# Safety Manual &Accident Prevention Program

**Our statement of general policy is:**

- **to provide adequate control of the health and safety risks arising from our work activities;**
- **to consult with our employees on matters affecting their health and safety;**
- **to provide and maintain a safe working environment**
- **to provide information, instruction ans supervision for employees**
- **to ensure all employees are competent to do their tasks and to give them adequate training;**
- **to prevent accidnts and cases of work-related ill health;**
- **to maintain safe and healthy working conditions; and**
- **to review and revise this policy as necessary at regular intervals.**

Kitt Construction & Development, LLC
June 2023

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# INTRODUCTION

The purpose of this policy is to develop our standards of safety throughout all operations of Kitt Construction & Development, LLC. We wish to ensure that no employee is required to work under any conditions which are hazardous or unsanitary.

Kitt Construction & Development believes that safety is our top priority at all times and it is our intention to initiate and maintain a complete accident prevention and safety program. Each individual is responsible for the safety and health of those persons in their charge and co-workers around them.

# GENERAL INSTRUCTIONS

## A. Overview

Industrial injuries create a no-win situation for everyone involved. Employees experience pain, suffering and incapacitation while the company suffers from the loss of the injured person's contributions. This document is designed to assist all personnel in assuring that such an undesirable situation will not develop in this company. It provides information and guidance for the establishment and maintenance of an injury-free work environment.

## B. Procedures

This document contains guidance for safety procedures to be followed and forms to be used. Supervisors are expected to integrate the procedures into the appropriate work activity and employees are expected to apply them on the job. The sample forms are to be used if they apply to the job concerned.

## C. Dissemination

A copy of this statement will be issued to all supervisory and management personnel. A copy of the policy statement will be posted on company safety and health bulletin boards and at the following locations:

1. Kitt Construction & Development, LLC at 5010 W. Chestnut Avenue #49 Yakima, WA 98908.

2. A copy can also be delivered to your jobsite upon request. Call the Office (509) 834-7888.

## D. Regulations

A copy of the following documents will be maintained on each job site:

1. Chapter 155, Construction Safety Standards from the Division of Industrial Safety and Health, Washington State Department of Labor and Industries.

2. Our customized copy of this Accident Prevention Program sample outline.

3. The WISHA Poster, form F416-081-000, which tells employees and employers their rights under the Washington Industrial Safety and Health Act.

# COMPANY POLICY LETTER

**SAFETY AND HEALTH POLICY FOR KITT CONSTRUCTION & DEVELOPMENT, LLC**

The purpose of this policy is to develop a high standard of safety throughout all operations of Kitt Construction & Development, LLC and to ensure that no employee is required to work under any conditions, which are hazardous or unsanitary.

We believe that each employee has the right to derive personal satisfaction from his/her job and the prevention of occupational injury or illness is of such consequence to this belief that it will be given top priority at all times.

It is our intention here at Kitt Construction & Development, LLC to initiate and maintain complete accident prevention and safety training programs. Each individual from top management to the working person is responsible for the safety and health of those persons in their charge and coworkers around them. By accepting mutual responsibility to operate safely, we will all contribute to the well being of our employees.

_____

Signed,

Casey Kitt, Owner

# EMPLOYEE SAFETY ORIENTATION POLICY

**Purpose:** Orientation of new employees, re-hires, part-time employees and those transferred from another department within Kitt Construction & Development, LLC will begin the first day of employment on the new job. This program will provide an introduction of company / department policies, rules and will include a thorough safety briefing. The orientation should include a tour of the facilities to acquaint the employee with the entire operation. The employee should also be advised how his / her job is important to the finished product or service.

**Procedure:** The immediate supervisor of the employee will thoroughly instruct him/her in the job safety and health requirements. Safety orientation checklists are provided for this purpose. The checklist must be covered by checking each item as it is covered, signing by the supervisor and employee, and returning it to the office for placement into the employees file.

# EMPLOYEE ORIENTATION SAFETY CHECKLIST

Employee Name _____ Date hired _____

This checklist is a guideline for conducting employee safety orientations for employees new to Kitt Construction & Development, LLC . Once completed and signed by company supervisor and employee, it serves as documentation that orientation has taken place. Place a check in each box to indicate that the subject has been covered:

□ 1. Explain the company safety program, including:
- A. Orientation
- B. On-the-job training
- C. Safety meetings, safety committee
- D. Accident investigation and reporting
- E. Employee safety concerns, report to supervisor immediately

□ 2. Personal protective equipment required.
- A. The use and care of PPE
- B. Application of PPE
- C. Fall protection training (if applicable)

□ 3. Line of communication and responsibility for immediately reporting accidents/ hazards.
- A. When, how, & to whom to report an injury
- B. Filing of accident report forms
- C. How to report unsafe conditions or actions

□ 4. General overview of operation.
- A. Procedures, methods, and hazards as they relate to the specific job and duties.
- B. Chemical Hazard Communication training & MSDS locations

□ 5. First aid supplies, equipment and training.
- A. Location and names of first aiders
- B. Location of all first aid kits
- C. Blood borne Pathogens Awareness

□ 6. Emergency plan
- A. Exit locations and evacuation routes
- B. Use of firefighting equipment (extinguishers and hose)
- C. Specific procedures (medical, chemical, fire, etc.)

□ 7. Vehicle safety
- A. Incident reporting procedures
- B. Define work and personal usage
- C. Company policies

□ 8. Personal work habits
- A. Serious consequences of horseplay, fighting, inattention
- C. Smoking policy
- D. Good housekeeping practices
- E. Proper lifting techniques
- F. Company general policies, procedures, & common practices
- G. Ladder safety and inspection guidelines

**NOTE TO EMPLOYEE: D0 NOT SIGN unless ALL items are covered and ALL questions are satisfactorily answered.**

# ACKNOWLEDGEMENT

Name: _____ Employee ID:_____

I acknowledge that I have been educated and trained in the Safety Orientation Program.

I am committing to the policy of performing my work in a safe manner. Adherence to the Kitt Construction & Development, LLC safety polices will be a condition of my continued work on Kitt Construction & Development, LLC projects.

I acknowledge that I have been issued and briefed on the environmental, safety, and health policies contained in the Safety Handbook, and I will abide by all rules and policies set forth therein.

If I have any additional questions concerning safe work practices contained in this handbook or concerns regarding other work tasks, I will contact my immediate supervisor.

_____ _____

Print Name Date

_____ _____

Signature Supervisor

*Signature of Acknowledgement*

# RESPONSIBILITIES

Responsibilities for safety and health include the establishment and maintenance of an effective communication system among workers, supervisors and management officials. To this end, all personnel are responsible to assure that their messages are received and understood by the intended receiver. Specific safety and health responsibilities for company personnel are as follows:

## A. Management Officials

Active participation in and support of safety and health programs is essential. Management officials will display their interest in safety and health matters at every opportunity. At least one manager (as designated) will participate in the safety and health committee meetings, incident investigations and inspections. Each manager will establish realistic goals for implementing instructions for meeting the goals. Goals and implementing instructions shall be within the framework established by this document. Incentives will be included as part of the instructions.

## B. Supervisors

The safety and health of the employees they supervise is a primary responsibility of the supervisors. To accomplish this obligation, supervisors will:

1. Assure that all safety and health rules, regulations, policies and procedures are understood and observed.
2. Require the proper care and use of all required personal protective equipment.
3. Identify and eliminate job hazards quickly through job safety analysis procedures. (See the Site Specific form.)
4. Inform and train employees on the hazardous chemicals and/or procedures they MAY encounter under normal working conditions or during an emergency situation. (See the Site Specific form.)
5. Receive and take initial action on employee suggestions, awards or disciplinary measures.
6. Conduct crew/leader meetings the first five minutes of each work shift to discuss safety and health matters and work plans for the workday.
7. Conduct walk-around safety inspections at the beginning of each job, and at least weekly thereafter.
8. Train employees (new and experienced) in the safe and efficient methods of accomplishing each job or task as necessary.
9. Review injury trends and establish prevention measures.
10. Attend safety meetings and actively participate in the proceedings.
11. Participate in incident investigations and inspections.

12. Promote employee participation in the safety and health program.

13. Actively follow the progress of injured workers and display an interest in their rapid recovery and return to work.

## C. Employees

Observe the items of responsibility established in this document as well as job safety rules which may apply to specific task assignments.

1. Coordinate and cooperate with all other employees and management in an attempt to eliminate occupational health and safety hazards.
2. Study and observe all safety standards governing their work.
3. Apply the principles of accident prevention in their daily work and use proper safety devices and protective equipment as required.
4. Be responsible for all personal protective equipment.
5. Employees shall make a report, on the day of the incident, to their immediate supervisor, of each industrial injury or occupational illness, regardless of the degree of severity.
6. Comply with all construction safety rules and regulations. Failure to follow required policies may be cause for termination.
7. Employee to only operate equipment you are qualified, cleared or licensed to operate.
8. All potential safety or health hazards are to be reported immediately to the nearest supervisor, if hazards threaten workers or the public. All hazards are to be corrected as soon as possible.
9. Report all and any on-the-job injury or illness, whether or not medical treatment or time loss is involved.
10. Modified Duty Program: Employees are expected to accept temporary, modified duty if offered, provided the specific physical demands of the work have been approved by your doctor.
11. Maintain current CPR and First Aid certification.
12. Observe the items of responsibility and job safety rules, which may apply to specific task assignments, which are established in this policy.

# ASBESTOS AND LEAD POLICY

Kitt Construction & Development, LLC is NOT an abatement contractor; therefore, we are not equipped or trained to deal with materials containing Asbestos or Lead.

Should we receive a report from the Owner indicating the presence of ACM or other hazardous materials on the jobsite, notification will be made to all employees and subcontractors. If hazardous substance abatement must be provided, a certified abatement subcontractor will be contracted directly by the Owner or Kitt Construction & Development, LLC to perform the work.

If an employee suspects asbestos or lead is contained in any material they are working with, they are instructed to leave the material and the area and report the material to their supervisor. At that time, the supervisor will contact an abatement contractor, if necessary to remove/abate the material.

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

Exposure to asbestos can create health issues including but not limited to respiratory disease and various types of cancer.

If employees working immediately adjacent to a Class I asbestos job are exposed to asbestos due to the inadequate containment of such job, their employer shall either remove the employees from the area until the enclosure breach is repaired or perform an initial exposure assessment.

# ASSURED GROUNDING PROGRAM

**Policy:**
*Ground Fault Circuit Interrupters* (GFCI) are required by the captioned codes for all 120 volt, single phase, 15-20 ampere receptacle outlets which are not a part of the permanent wiring of a building or structure of/ or on a construction project. As an alternative to the Ground Fault Circuit Interrupter requirement, it will be the policy of the undersigned to instruct employees ***not*** to use any equipment that does not meet the requirements of the Assured Grounding Program.

**Procedure:**
All equipment to be used on the construction site shall be tested, identified and coded using the following procedures, with the exception of the "double insulated" system, which need not be tested.

**Testing:**

- ☑ All Equipment shall be tested before first use for grounding and continuity of the circuitry.
- ☑ Equipment returned to service following repairs shall be tested for the continuity before being used.
- ☑ Tests shall be done quarterly, at intervals not exceeding one every three months.
- ☑ Tested equipment shall be identified by way of color coding. Two (2) colors shall be used. First color to identify the quarter and the second to identify the month within the quarter.
- ☑ Equipment shall be visually inspected before use each day for external defects, including deformed or missing pins, insulation damage and indication of possible internal damage. Equipment shall not be used until repaired, re-tested and results recorded.

**All tests shall be recorded and attached to the site specific schedule and retained at the job site.**

**ASSURED GROUNDING COLOR CODING SCHEME**

| Month | Quarterly Color | Monthly Color |
|---|---|---|
| January | White | White |
| February | | Yellow |
| March | | Blue |
| April | | Green |
| May | Green | Yellow |
| June | | Blue |
| July | | Red |
| August | Red | Yellow |
| September | | Blue |
| October | | Orange |
| November | Orange | Yellow |
| December | | Blue |

# BASIC RULES FOR ACCIDENT INVESTIGATION

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

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

- If possible, interview the injured worker at the scene of the incident and "walk" him or her through a re-enactment. Be careful not to actually repeat the act that caused the injury.

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

- Consider taking the signed statements in cases where facts are unclear or there is an element of controversy.

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

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

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

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

# INCIDENT INVESTIGATION REPORT FORM

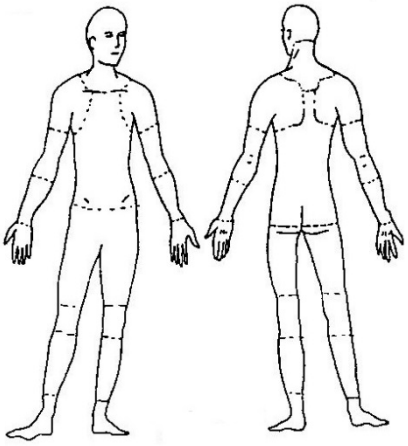
**Instructions**: Complete this form as soon as possible after an incident that results in serious injury or illness. (Optional: Use to investigate a minor injury or near miss that *could have resulted in a serious injury or illness*.)

| | |
|---|---|
| This is a report of a: ❑ Death ❑ Lost Time ❑ Dr. Visit Only ❑ First Aid Only ❑ Near Miss | |
| Date of incident: | This report is made by: ❑ Employee ❑ Supervisor ❑ Team ❑ Final Report |

**Step 1: Injured employee (complete this part for each injured employee)**

| | | |
|---|---|---|
| Name: | Sex: ❑ Male ❑ Female | Age: |
| Department: | Job title at time of incident: | |

Part of body affected: (shade all that apply)



Nature of injury: (most serious one)
- ❑ Abrasion, scrapes
- ❑ Amputation
- ❑ Broken bone
- ❑ Bruise
- ❑ Burn (heat)
- ❑ Burn (chemical)
- ❑ Concussion (to the head)
- ❑ Crushing Injury
- ❑ Cut, laceration, puncture
- ❑ Hernia
- ❑ Illness
- ❑ Sprain, strain
- ❑ Damage to a body system:
- ❑ Other _____

This employee works:
- ❑ Regular full time
- ❑ Regular part time
- ❑ Seasonal
- ❑ Temporary

Months with this employer

Months doing this job:

(e.g.: nervous, respiratory, or circulatory systems)

**Step 2: Describe the incident**

| | |
|---|---|
| Exact location of the incident: | Exact time: |

What part of employee's workday? ❑ Entering or leaving work ❑ Doing normal work activities ❑ During meal period ❑ During break ❑ Working overtime ❑ Other

Names of witnesses (if any):

| Number of attachments: | Written witness statements: | Photographs: | Maps / drawings: |
|---|---|---|---|

What personal protective equipment was being used (if any)?

Describe, step-by-step the events that led up to the injury. Include names of any machines, parts, objects, tools, materials and other important details.

Description continued on attached sheets: ❑

## Step 3: Why did the incident happen?

| Unsafe workplace conditions: (Check all that apply) | Unsafe acts by people: (Check all that apply) |
|---|---|
| ❑ Inadequate guard | ❑ Operating without permission |
| ❑ Unguarded hazard | ❑ Operating at unsafe speed |
| ❑ Safety device is defective | ❑ Servicing equipment that has power to it |
| ❑ Tool or equipment defective | ❑ Making a safety device inoperative |
| ❑ Workstation layout is hazardous | ❑ Using defective equipment |
| ❑ Unsafe lighting | ❑ Using equipment in an unapproved way |
| ❑ Unsafe ventilation | ❑ Unsafe lifting by hand |
| ❑ Lack of needed personal protective equipment | ❑ Taking an unsafe position or posture |
| ❑ Lack of appropriate equipment / tools | ❑ Distraction, teasing, horseplay |
| ❑ Unsafe clothing | ❑ Failure to wear personal protective equipment |
| ❑ No training or insufficient training | ❑ Failure to use the available equipment / tools |
| ❑ Other: _____ | ❑ Other: _____ |

Why did the unsafe conditions exist?

Why did the unsafe acts occur?

Is there a reward (such as "the job can be done more quickly", or "the product is less likely to be damaged") that may have encouraged the unsafe conditions or acts? ❑ Yes ❑ No
If yes, describe:

Were the unsafe acts or conditions reported prior to the incident? ❑ Yes ❑ No

Have there been similar incidents or near misses prior to this one? ❑ Yes ❑ No

**Step 4: How can future incidents be prevented?**

**What changes do you suggest to prevent this injury/near miss from happening again?**

❑ Stop this activity ❑ Guard the hazard ❑ Train the employee(s) ❑ Train the supervisor(s)

❑ Redesign task steps ❑ Redesign work station ❑ Write a new policy/rule ❑ Enforce existing policy

❑ Routinely inspect for the hazard ❑ Personal Protective Equipment ❑ Other: _____

What should be (or has been) done to carry out the suggestion(s) checked above?

Description continued on attached sheets: ❑

**Step 5: Who completed and reviewed this form? (Please Print)**

| | |
|---|---|
| Written by:<br><br>Department: | Title:<br><br>Date: |
| Names of investigation team members: | |
| Reviewed by: | Title:<br><br>Date: |

# BLOODBORNE PATHOGEN EXPOSURE POLICY

**Purpose:**
To protect exposed employees from hazards associated with bloodborne pathogens, in particular HIV and Hepatitis B Virus. To prevent employees who are administering first aid resulting from an accident, such as, a serious laceration from work tools.

**Definitions:**

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

**Exposure Determination:**
Kitt Construction & Development, LLC employees have very little risk in being exposed to bloodborne pathogens, unless in close proximity of an occupational accident or when designated to administer first aid practices. Employees administering first aid are the affected employees who are considered exposed or will be potentially exposed, to blood and/ or other potentially infectious materials.

**Exposure Control:**

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

**Engineering Controls:**

- Kitt Construction & Development, LLC will provide hand washing facilities where possible. In case hand-washing facility is impractical, First Aid Kits will provide antiseptic cleansers or towelettes.
- Proper PPE will be provided: gloves, face shields for CPR, eye protection.
- Orientation of employees to first aid supplies and PPE.

**Post Exposure Evaluation and Follow up**:

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

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

# CONFINED SPACES PROGRAM

**INTRODUCTION**

Fatalities and injuries constantly occur among construction workers who, during the course of their jobs, are required to enter confined spaces. In some circumstances, these workers are exposed to multiple hazards, any of which may cause bodily injury, illness, or death. Workers are injured and killed from a variety of atmospheric factors and physical agents.

The construction standard (WAC 296-155) requires that companies follow WAC 296-809, when working in confined spaces. There is an exception for work on sewer systems under construction.

Employers must consult with employees and their authorized representatives on the development and implementation of all aspects of the permit required confined space entry program required by the Confined Space Standard, (WAC 296-809).

All information required by the Confined Space Standard must be available to employees affected by the standard (or their authorized representatives).

You must first determine if you have any confined space situations. A confined space has three characteristics; it must have **all three** characteristics to be considered a confined space:

1. Large enough to get your body entirely inside to do your work
2. Not designed or intended for continuous occupation
3. Restricted entry or exit

If you do have any confined spaces, you must not enter them until you have carefully evaluated the hazards inside to determine what type of entry procedure may be used for each confined space you have:

- Non-permit-required confined space (NPRCS)
- Permit-required confined space (PRCS)
- Alternate Entry

## PURPOSE

The purpose of this standard is to provide Kitt Construction & Development, LLC with proper procedures for work requiring entry into permit required confined spaces.

## SCOPE

This standard applies to all Kitt Construction & Development, LLC employees and subcontractors.

## DEFINITIONS

**Acceptable Entry Conditions:** The conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit required confined space entry can safely enter into and work within the space.

**Attendant:** An individual stationed outside one or more permit-required confined spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the Kitt Construction & Development, LLC Confined Space Entry Program.

**Authorized Entrant:** An employee who is authorized by Kitt Construction & Development, LLC to enter a permit space.

**Authorized Person:** A person selected by Kitt Construction & Development, LLC management who is responsible for the issuance of an entry permit, determines rescue provisions, and understands the hazards faced during confined space entry.

**Blanking or Blinding:** The absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

**Confined Space:** A space that (1) is large enough and so configured that an employee's body can enter and perform assigned work; and (2) has limited or restricted means for entry or exit (i.e., tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and (3) is not designed for continuous employee occupancy.

**Double Block and Bleed:** The closure of a pipe, line, or duct by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

**Emergency:** Any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.

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

**Entry:** The action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

**Entry Permit:** The written or printed document that is provided by Kitt Construction & Development, LLC or the host company that controls entry into a permit space. It contains the information specified in Section 9.0 of this program.

**Entry Supervisor:** The person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this section.

**Hazardous Atmosphere:** An atmosphere that may expose employees to the risk of death, incapacitation, or impairment of ability to self-rescue. That is, escape unaided from a permit space, injury, acute illness from one or more of the following causes:

1. Flammable gas, vapor, or mist in excess of 10% of its lower explosive limit (LEL).

2. Airborne combustible dust at a concentration that meets or exceeds its LEL.

   **NOTE:** This concentration may be approximated as a condition in which the dust obscures vision at a distance of 5 feet (1.52 m) or less.

3. Atmospheric oxygen concentration below 19.5% or above 23.5%.

   **NOTE:** An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this provision.

4. Any other atmospheric condition that is immediately dangerous to life or health.

   **NOTE:** For air contaminants for which there has not been determined a dose or permissible exposure limit, other sources of information, such as Material Safety Data Sheets that comply with the Hazard Communications Standard, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

**Host Employer:** Owner of the facility where work is being performed.

**Hot Work Permit:** Kitt Construction & Development, LLC or host company's written authorization to perform operations (for example, riveting, welding, cutting, burning, and heating) capable of providing a source of ignition.

**Immediately Dangerous to Life or Health:** (IDLH) Any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

**NOTE:** Some materials – hydrogen fluoride gas and cadmium vapor, for example – may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12 to 72 hours after exposure. The victim "feels normal" from recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be "immediately" dangerous to life or health.

**Inerting:** The displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.
**NOTE:** This procedure produces an IDLH oxygen-deficient atmosphere.

**Isolation:** The process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

**Line Breaking:** The intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

**Non-Permit Confined Space:** A confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

**Oxygen-Deficient Atmosphere:** An atmosphere containing less than 19.5% oxygen by volume.

**Oxygen-Enriched Atmosphere:** An atmosphere containing more than 23.5% oxygen by volume.

**Permit-Required Confined Space:** A confined space that has one or more of the following characteristics:

1. Contains, or has a potential to contain, a hazardous atmosphere,
2. Contains a material that has the potential for engulfing an entrant,
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to smaller cross section, OR
4. Contains any other recognized serious health hazard.

**Permit-Required Confined Space Program:** Kitt Construction & Development, LLC's overall program for controlling and, where appropriate, for protecting employees from permit space hazards, and for regulating employee entry into permit spaces.

**Permit System:** Kitt Construction & Development, LLC or host employer's written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

**Prohibited Condition:** Any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

**Rescue Service:** The personnel designated to rescue employees from permit spaces.

**Retrieval System:** The equipment (including a retrieval line, chest or full body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

**Testing:** The process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.
**NOTE:** Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants, and determine if acceptable entry conditions are present immediately prior to and during entry.

**GENERAL REQUIREMENTS**

In addition to this policy, Kitt Construction & Development, LLC is required to conform to all customers' policies and procedures, including any additional requirements for permit required confined spaces. In the event of disputed policy, the more stringent procedures shall apply.

The workplace shall be surveyed to determine if any spaces are permit required confined spaces.

Initially, ALL confined spaces shall be considered permit-required until the proper hazard analyses and atmospheric testing are performed and the space is deemed a non-permit space.

Outside attendants and entry permits are required on ALL permit-required confined space entries.

Permit-required spaces on all Kitt Construction & Development, LLC jobsites shall be communicated to personnel by posting warning signs, or the equivalent, of the existence and location of and the danger posed by the permit spaces. The sign must remain there until the space is closed. For example: "DANGER – PERMIT-REQUIRED CONFINED SPACE – DO NOT ENTER."

If the employer decides that personnel are not to enter permit spaces, Kitt Construction & Development, LLC shall take effective measures to prevent individuals from entering the permit spaces.

If permit spaces are to be entered, Kitt Construction & Development, LLC or Host Company’s written permit entry program shall be implemented and observed. This program shall be made available to Kitt Construction & Development, LLC employees.

Ensure that the confined space is completely drained, thoroughly cleaned, and purged according to the hazardous nature of the material previously in the space.

Pipes, lines, or other connections shall be disconnected, blocked, or isolated by some mechanical means to ensure complete isolation of the confined space from harmful agents.

Any moving equipment within a confined space shall be de-energized per lockout/tagout procedures.

Be aware of other physical hazards such as, noise, heat, falls, moving equipment, and electrical hazards.

All personal protective equipment, as noted on Kitt Construction & Development, LLC confined space entry permit or host permit, shall be worn and used as per instructions.

Ladders (or other safe means) shall be utilized for access and egress into confined spaces exceeding 4 feet in depth.

The company gas monitors are all Multi-Pro units and must be calibrated every 30 days. Use of a monitor that is beyond its required calibration date is not allowed. There is a calibration docking station in the safety office and after calibration the log will be updated to reflect the last calibration date. The instrument displays the calibration due when it is turned on and performs its internal self checks. Any problem indicated after the self checks are done must be corrected before proceeding with an entry.

## RECLASSIFICATION OF A PERMIT-REQUIRED CONFINED SPACE

A space deemed as a permit-required confined space may be reclassified as a non-permit confined space under the following circumstances.

1. No actual or potential atmospheric hazards within the space, ALL hazards are ELIMINATED, not controlled, without entry into the space. This may be classified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated.

2. If it is necessary to enter the permit space to eliminate hazards, entry shall be treated as a permit-required confined space. Entry shall be performed under Sections 8.0 through 18.0 of this program. If testing and inspection during entry demonstrates that the hazards within the permit space have been eliminated, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.

3. The employer shall document the basis for determining that all hazards in a permit space have been eliminated through a certification. See Attachment 2. The certification shall be made available to each employee entering the space.

If a permit space hazard arises in the space that has been declassified to a non-permit space, each employee in the space shall exit the space. The space shall be re-examined to rule whether it must be reclassified as a permit space. This shall be available to all employees.

Reclassification of permit spaces generally applies to spaces inhibiting hazardous energy sources or engulfment hazards.

Reclassification remains valid only as long as the hazard remains eliminated.

## RECLASSIFICATION WITH POTENTIAL HAZARDOUS ATMOSPHERES (Alternate Entry)

Permit spaces that contain, or have the potential to contain, hazardous atmospheres may also be reclassified as non-permit spaces when:

1. Hazards are eliminated (not just controlled).

2. Atmospheric testing and conditions within the space should be checked to guarantee the elimination of the hazards.

3. Reclassification of a permit space requires documentation by complying with procedures showing the space as hazard-free. This shall be available to all employees.

**NOTE:** The use of forced ventilation does not constitute the elimination of the hazard. The monitoring data to support this determination is 19.5 to 21% oxygen, 0% LEL, and toxins below a level of detection.

If a permit space hazard arises in the space that has been reclassified, employees must exit the space. If changes in the use or configuration of a non-permit confined space may increase the hazard to entrants, the space shall be re-examined to rule whether it must be reclassified as a permit required space. The necessary documentation shall be done. This shall be available to all employees.

## PERMIT SPACE NOT REQUIRING PERMITS

Permit spaces not requiring permits are spaces that only contain actual or potential atmospheric hazards, and continuous forced-air ventilation will maintain those permit spaces safe for entry.

Permit spaces not requiring permits must meet the following conditions:

1. Be able to demonstrate that continuous forced-air ventilation alone is sufficient to maintain the space safe for entry.

2. Have testing and inspection data to support determination.

3. Make supporting data available to employees.

4. Not inject hazardous quantities of flammable or toxic substances within the space.

5. If required, perform initial entry as a permit-required confined space in accordance with procedures of this program. This shall be available to all employees.

**PERMIT ENTRY REQUIREMENTS**

If conditions exist that make it unsafe to remove an entrance cover, the unsafe condition shall be eliminated before the cover is removed.

PRIOR to authorized entry into a permit-required space, the internal atmosphere shall be fully tested, with a calibrated direct-reading instrument by an authorized person. The below conditions must exist, in the order given, to determine if they are within safe limits.

1. Oxygen between 19.5% and 23.5%.
2. Flammable gases and vapors less than 10% LEL.
3. Potential toxic air contaminants (carbon monoxide, H2S) half the PEL.

Air samples shall be taken at varying levels. Some gases are lighter (methane) and heavier (propane) than air.

Use continuous forced-air and direct ventilation in the immediate areas where employees are present within the space and must continue until all employees have left the space.

The atmosphere within the space shall be periodically tested to safeguard against hazardous atmospheres and to ensure the effectiveness of the continuous forced-air ventilation.

Ensure air supply for the ventilation is from a clean source.

Immediately upon detecting a hazardous atmosphere, all employees shall abandon the space.

An evaluation of the space shall be executed to ascertain how the hazardous atmosphere evolved.

Procedures shall be implemented to protect employees from the hazardous atmospheres before any subsequent entry takes place.

A Confined Space Entry Permit shall be issued that contains the minimum information.

**CONFINED SPACE ENTRY PERMIT**

Permits shall be issued by trained and authorized personnel only.

Permits shall be issued and posted at the entry way PRIOR to entering the space.

The duration of a permit many not exceed the time required to complete the assigned task, the job identified on the permit, or over twelve hours.

Permits must be available for each employee's review.

Confined space permits shall contain the following minimum written information. Permits less stringent will not be accepted.

- Identify space to be entered.
- The purpose of the entry.
- The date and duration of the permit.
- Signature of person who completed the permit.
- Space for authorized entrants' names.

- Name of the outside attendant(s).
- Entry supervisor's name.
- Hazards within the confined space.
- Control measures to regulate or eliminate hazards before entry.
- Acceptable entry conditions.
- Results of monitoring (02, LEL, PEL), both initial and periodic.
- Emergency phone, radio number(s) for rescue.
- Communication procedures.
- A section noting equipment including rescue, PPE, alarm systems, etc.
- Special instructions.
- Additional work permits.

**CANCELLATION OF A CONFINED SPACE PERMIT**

When the date and/or time expires on the permit.

When the job or task is complete as noted on the permit.

A condition is observed that is prohibited under the permit.

A plant emergency, evacuation, or alarm sounds.

Canceled entry permits shall be retained for at least one year. Expired permits shall be retained until job completion. Once the job has been completed, forward expired permits to Office Manager, Grace Danielson.

**RESCUE SERVICES**

Only qualified personnel may enter a confined space for rescue purposes.

Rescue shall involve employee retrieval systems whenever possible, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant.

Members of the rescue service shall be specially trained to perform confined space rescue operations.

In addition, rescuers shall receive training that is provided to authorized entrants.

All rescuers shall be first aid/CPR qualified.

Authorized employees, authorized entrants, outside attendants, and entry supervisors must be familiar with procedures for summoning rescue and emergency services.

When utilizing outside rescue services, the agencies shall be made aware of potential hazards in order to develop rescue plans and practice rescues.

MSDSs shall be made available to medical facilities when an exposure occurs.

**RETRIEVAL SYSTEMS**

To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Retrieval systems shall meet the following requirements:

1. Each authorized entrant shall use a chest or full-body harness, with a retrieval line attached at the center of the entrant's back, either shoulder level .

2. Wristlets may be used in lieu of the chest or full-body harness if the employer can demonstrate that the use of a chest or full-body harness is infeasible or creates a greater hazard, and that the use of wristlets is the safest and most effective alternative.

3. The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary.

4. A mechanical device shall be available to retrieve personnel from vertical-type permit space more than 5 feet deep.

5. The Miller Might-Evac retrieval system does not need to be recertified by the factory each year per the manufacturer. It does need to be closely inspected each time it is used. It cannot be used if there are any indications of problems discovered during the inspection. Inspection procedures include pulling the cable completely from the housing to see that t both deploys and retracts smoothly, examining the impact load indicator for signs of impact or overloading, such as deformity and engaging the retrieval handle to see that the unit winds the cable in smoothly. These units are for fall protection and retrieval only and cannot be used as lifting and lowering devices.

**TRAINING**

Kitt Construction & Development, LLC shall provide training to all employees involved with confined space entry. Before completion of this required training, they must acquire the understanding, knowledge, and skills necessary for the safe performance assigned under this standard.

All affected employees shall be trained prior to any assigned task that will involve confined space entry.

Additional training shall take place in any of the following circumstances:

1. An employee is assigned a new task.
2. There are changes in permit space operations.
3. There are deviations in the permit space entry procedures.
4. There are signs of inadequacies in the employee's knowledge or in his use of these procedures.

Training shall be documented. Copies of the written training requirements shall be maintained at the jobsites. The original records must be forwarded to Kitt Construction & Development, LLC Corporate Safety upon job completion.

All training records must include the training content, the employee's name, the date and time of training, and the instructor's name.

**OUTSIDE ATTENDANT – DUTIES AND RESPONSIBILITIES**

Be cognizant of the last product that was contained in the confined space. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

Be aware of behavioral effects of hazard exposure in authorized entrants.

Be aware of the type of material and/or processes taking place in the surrounding area(s).

Make sure that an entry permit has been issued for the EXACT area you are assigned to watch. Check the permit for:

1. The signature of the authorized person who issued it.
2. All precautions noted on the permit have been fulfilled.
3. The current date, time, location, and correct job scope. If the outside attendant must leave the area at any time, he/she must have a qualified replacement before leaving. If unable to do so, the confined space must be vacated. It may be necessary for the outside attendant to utilize an alarm device (air horn, whistle, etc.). If an emergency were to emanate, the attendant must be able to alert the individuals inside the confined space or signal for outside help. The outside attendant shall remain outside the point of entry where he can maintain either visual or voice contact with the crew inside. If it is necessary for the outside attendant to be situated where prompt access to the emergency system is not possible, a radio must be utilized to facilitate communication with emergency rescue services. When a confined space entry permit is issued and dictates the use of personal protective equipment, the outside attendant will have the

identical PPE and be instructed in its use. The outside attendant shall perform no other duties that may interfere with the primary duty of monitoring and communicating with entrants. The outside attendant may perform tasks, such as handing tools or removing containers of debris in and out of the space. The outside attendant may also be compelled to serve as fire watch for hot work operations within the confined space. Fire watch duties and responsibilities shall then apply to the outside attendant as well. The outside attendant is responsible for maintaining an accurate sign in/out log to ensure count. When the space is vacated, the outside attendant should make certain that all personnel that were inside are accounted for. When the day's work has been completed inside the confined space, or the shift ends, the outside attendant should inform the entry supervisor that all personnel have vacated the confined space. Summon rescue and other emergency services as soon as the outside attendant determines that authorized entrants may need assistance to escape from permit space hazards. It should be understood by all confined space workers that they must obey evacuation requirements, instructions, warnings, etc., given by the outside attendant. Rescue may be attempted by the outside attendant ONLY when the employee inside is wearing a full harness with a lifeline attached to a fixed point outside the space. The attendant may then attempt to pull the employee out of the space. In either case, the rescue services must be notified prior to the rescue attempt.

**EVACUATION OF A CONFINED SPACE**

The confined space must be evacuated immediately under any of the following conditions:

1. The outside attendant detects a prohibited condition.

2. The outside attendant observes the behavioral effects of hazard exposure in an authorized entrant.

3. The outside attendant detects a situation remote of the confined space that could threaten the authorized entrants (smoke, gas, fire, etc.).

4. The outside attendant cannot effectively and safely perform all of the duties required of him/her.

**UNAUTHORIZED PERSONS**

It is our responsibility to prevent unauthorized entries into confined spaces on our projects. This will be done by keeping lids in place at all times on vaults, catch basins and manholes unless an entry is being prepared for or underway. Most of our permit required entries are in existing sewers. The manholes are typically in live traffic and require lane closures to facilitate access. In cases where this is not the case a plan for securing the space must be made and followed.

The outside attendant must take the following actions when unauthorized persons near or enter a confined space while entry is underway.

1. Warn all unauthorized persons that they must stay away from the space.

2. Advise unauthorized persons that they must exit, without delay if they have entered the confined space.

3. Inform the authorized entrants, entry supervisor, and authorized person who issued the permit if unauthorized persons have entered the confined space.

**AUTHORIZED ENTRANTS – DUTIES AND RESPONSIBILITIES**

Entrants must know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of exposure.
Entrants shall be trained on the equipment as prescribed by the permit.
Entrants shall ensure that all equipment is in good working order. If not, replace before entry.
Entrants must confirm that all equipment in the confined space is the exact equipment stipulated by the permit. For instance, when the precautions require explosion-proof lighting, make certain the lighting is explosion-proof and not regular 12V or 110V.
Entrants must communicate with attendant as necessary to enable the attendant to monitor entrant conditions, and to enable the attendant to alert entrants of the need to evacuate the space if necessary.
Authorized entrants should exit the space and notify the outside attendant when (1) the entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or (2) the entrant detects a prohibited condition.
Authorized entrants shall evacuate the confined space when:

1. An order is given by the outside attendant,

2. The entrant recognizes warning signs or symptoms of exposure to a dangerous situation,

3. The entrant detects a prohibited condition, OR

4. An evacuation/emergency alarm sounds.

## ENTRY SUPERVISORS – DUTIES AND RESPONSIBILITIES

The entry supervisor for Kitt Construction & Development, LLC shall either be the superintendent, senior supervisor, or foreman on site where entry is made.

Know of the hazards within the confined space, including information on the mode, signs, symptoms, and consequences of exposure.

Ensure that all tests have been conducted and all procedures and equipment are in place before signing the permit.

Confirm all entrants and attendants are trained and understand the provisions noted on the confined space permit.

Verify that rescue services are available and that a means for summoning them are operable.

Coordinate entry operations when other employees, crafts, and subcontractors are working simultaneously in the space.

Remove unauthorized individuals who enter or who attempt to enter the permit space during entry operations.

Responsible for terminating and canceling the permit.

Ensure that when shifts and entry supervisors change, acceptable entry conditions of this program continue.

## SPECIAL APPLICATIONS

Prior to any welding or cutting, approval and a Hot Work Permit must be obtained. Gas cylinders will not be taken into confined spaces. Torches and hoses shall be removed from confined spaces when not in use.

## SUBCONTRACTOR NOTIFICATION

When a subcontractor performs work that involves permit space entry, the subcontractor shall be informed of the following:

1. Entry is permitted only through compliance with a permit space program that meets the requirements of this program.

2. Host employer's experience with the space and of the hazards that make the space to be entered a permit space.

3. Precautions or procedures that have been implemented for the protection of employees.

Entry operations shall be coordinated with Kitt Construction & Development, LLC and host employer.

Subcontractors must inform Kitt Construction & Development, LLC and host employer of any hazards confronted or created in the space during entry.

# Confined Space Plan Orientation Form

The purpose of the Confined Space Orientation is to define the requirements, responsibilities, and system for controlling entry and work in confined spaces, to ensure compliance with the Occupational Safety and Health Administration and Washington Industrial Safety and Health Administration standards.

**This orientation does not constitute formalized confined space training. No employee shall enter a confined space until he/she has successfully completed all required confined space training and documentation of training has been reviewed and accepted by the Safety Manager.**

_____has received orientation on

Kitt Construction & Development, LLC Confined Space Program, which includes the following information.

☐ An overview of the requirements contained in the Confined Space standard WAC 296-809.
☐ Definition of confined space, authorized entrant, competent person, standby attendant.
☐ Explanation of permit required confined spaces.
☐ Examples of a confined space entry permit.
☐ Basic confined space entry procedures.
☐ Nature of hazards of involved with confined spaces.
☐ Necessary precautions to take.
☐ Use of Personal Protective Equipment.
☐ Explanation of the implementation of emergency plan.

**Do not sign unless all items are covered and all questions are satisfactorily answered. The signatures below document that the appropriate elements have been discussed to the satisfaction of both parties, and both the supervisor and employee accept responsibility for maintaining a healthful work environment.**

**Supervisor:** _____ **Date:** _____

**Employee:** _____ **Date:** _____

**Checklist for Permit Required Confined Spaces Program**

| 29 CFR 1910.146 - Permit Required Confined Spaces for General Industry | | | | |
|---|---|---|---|---|
| **Item** | **Description** | **Yes** | **No** | **N/A** |
| | **Section C (General Requirements)** | | | |
| 1. | (1) - Workplace evaluated for presence of permit required spaces? | | | |
| 2. | (2) - Danger signs/ Employee informed of location and danger? | | | |
| 3. | (3) - Steps taken to prevent employee entry into the confined space? | | | |
| 4. | (4) - Written permit space entry program established? | | | |
| 5. | Written program available for inspection by employees/employee reps.? | | | |
| | ***If employer uses alternative procedures to enter permit space, answer questions on page 6, otherwise, continue with Section D*** | | | |
| | **Section D (Permit Required Confined Space Program)** | | | |
| 6. | (1) - Measures implemented to prevent unauthorized entry? | | | |
| 7. | (2) - Hazards identified and evaluated prior to employee entry? | | | |
| 8. | (3) - Means, Practices, and Procedures implemented for safe entry? | | | |
| 9. | (i) Acceptable entry conditions specified? | | | |
| 10. | (ii) Opportunity to observe any monitoring or testing of atmospheres? | | | |
| 11. | (iii) Permit space isolated? | | | |
| 12. | (iv) Purging, inerting, flushing, or venting to eliminate or control atmospheric hazard performed? | | | |
| 13. | (v) Vehicular or pedestrian barriers erected? | | | |
| 14. | (vi) Verification of acceptable conditions throughout authorized entry? | | | |
| 15. | (4) - Required equipment provided and maintained at no cost to employees? | | | |
| 16. | (i) Testing and monitoring equipment provided and maintained? | | | |
| 17. | (ii) Ventilation equipment to maintain acceptable entry conditions? | | | |
| 18. | (iii) Communication equipment? | | | |
| 19. | (iv) Personal protective equipment? | | | |
| 20. | (v) Adequate lighting equipment? | | | |
| 21. | (vi) Barriers and shields? | | | |
| 22. | (vii) Ladders, adequate means of Egress and Ingress for authorized entrants? | | | |
| 23. | (viii) Rescue and emergency equipment? | | | |
| 24. | (ix) Other equipment necessary for safe entry into and rescue from? | | | |
| 25. | (5) - Permit space conditions evaluated for entry operations? | | | |
| 26. | (i) Test space prior to entry to determine conditions? | | | |
| 27. | (ii) Test conditions for duration of entry operations? | | | |
| 28. | (iii) Testing sequence correct (oxygen - combustibles - toxics)? | | | |
| 29. | (6) - At least one attendant provided outside of permitted space during entry operations? | | | |
| 30. | (7) - Means for attendant for multiple spaces to respond to emergency in one or more spaces w/o distracting the responsibility for the other spaces? | | | |

| | | | | |
|---|---|---|---|---|
| 31. | (8) - Persons with active roles designated? (entrants, attendants, testers) | | | |
| 32. | (9) - System for summoning rescue and emergency services developed and implemented? | | | |
| 33. | (10) - System for preparation, issuance and cancellation of permits developed and implemented? | | | |
| 34. | (11) - Method of coordinating entry operations involving more than one employer developed and implemented? | | | |
| 35. | (12) - Methods developed for closing of space and canceling permits? | | | |
| 36. | (13) - Entry operations reviewed to assure that procedures protect employees in the confined space? | | | |
| 37. | (14) - Program reviewed annually and revised when required? | | | |
| | **Section E (Permit System)** | | | |
| 38. | (1) - Entry permit prepared prior to entry? | | | |
| 39. | (2) - Permit signed by entry supervisor? | | | |
| 40. | (3) - Permit available to all authorized entrants? (Posting, entrances) | | | |
| 41. | (4) - Duration of permit exceeded? | | | |
| 42. | (5) - Entry terminated when: | | | |
| 43. | (i) Entry operations covered by permit are completed? | | | |
| 44. | (ii) A condition that is not allowed under the entry permit arises in or near the space? | | | |
| 45. | (6) - Cancelled entry permits retained for at least one year? | | | |
| 46. | Problems encountered during entry noted on permit? | | | |
| | **Section F (Entry Permit)**<br>Entry permit documents compliance and must identify: | | | |
| 47. | (1) - The permit space to be entered? | | | |
| 48. | (2) - The Purpose of Entry? | | | |
| 49. | (3) - The date and authorized duration of the entry permit | | | |
| 50. | (4) - Identification of entrants? | | | |
| 51. | (5) - Name of the attendant(s)? | | | |
| 52. | (6) - Entry supervisors name? | | | |
| 53. | (7) - The hazard of the permit space to be entered? | | | |
| 54. | (8) - Measures used to isolate and to eliminate or control space? | | | |
| 55. | (9) - Acceptable entry condition? | | | |
| 56. | (10) - Results of initial and periodic tests | | | |
| 57. | (11) - Emergency and rescue services that can be summoned, the means and telephone numbers | | | |
| 58. | (12) - Communication procedures used by entrants? | | | |
| 59. | (13) - Equipment such as PPE, testing equipment, communications equipment, alarm systems and rescue equipment? | | | |
| 60. | (14) - Information on special conditions that may effect safety of entrants? | | | |
| 61. | (15) - Any additional permits that have been authorized for work in the space; i.e., hot work permit? | | | |
| | **Section G (Training)** | | | |

| | | | | |
|---|---|---|---|---|
| 62. | (2) - All affected employees received required training? | | | |
| 63. | (i) Before assigned duties in confined space? | | | |
| 64. | (ii) Before a change in assigned duties? | | | |
| 65. | (iii) Whenever a change occurs in the permit space that was not included in the original training? | | | |
| 66. | (iv) Whenever there are inadequacies in employee knowledge or use of these procedures? | | | |
| 67. | (3) - Employee proficiency established by training? | | | |
| 68. | (4) - Certification of training by employer? (Note: The certification shall contain each employee's name, the signatures or initials of the trainers and the dates of training.) | | | |
| | **Section H (Duties of Authorized Entrants)** | | | |
| 69. | (1) - Aware of all hazards faced during entry (mode, signs, symptoms & consequences of exposures)? | | | |
| 70. | (2) - Aware of how to use equipment properly as required by (d)(4)? | | | |
| 71. | (3) - Communicate with Attendant (monitor entrant status and alert for evacuation)? | | | |
| 72. | (4) - Alert the attendant if: | | | |
| 73. | (i) Entrant recognizes any warning sign or symptom of danger? | | | |
| 74. | (ii) Entrant detects a prohibited condition | | | |
| 75. | (5) - Entrant knows how to exit from the permit space as quickly as possible? | | | |
| 76. | (i) If an order to evacuate is given by the attendant or entry supervisor? | | | |
| 77. | (ii) If the entrant recognizes any warning signs or symptoms of danger? | | | |
| 78. | (iii) If the entrant detects a prohibited condition? | | | |
| 79. | (iv) If the evacuation alarm is activated? | | | |
| | **Section I (Duties of Attendants)** | | | |
| 80. | (1) - Knows the hazards that will be faced? | | | |
| 81. | (2) - Aware of behavioral effects of hazard exposure? | | | |
| 82. | (3) - Maintains accurate count of entrants & able to identify authorized entrants? | | | |
| 83. | (4) - Remains outside of permit space until relieved? | | | |
| 84. | (5) - Maintains communication with entrants as necessary to monitor entrant's status? | | | |
| 85. | (6) - Monitors activities inside and outside of space to determine if it is safe for entrants to remain? | | | |
| 86. | (7) - Evacuate permit space immediately under the following conditions: | | | |
| 87. | (i) If the attendant detects a prohibited condition | | | |
| 88. | (ii) If the attendant detects the behavioral effects of hazard exposure in an authorized entrant? | | | |
| 89. | (iii) If the attendant detects a situation outside the space that could endanger the authorized entrants? | | | |
| 90. | (iv) If the attendant cannot effectively and safely perform all the duties? | | | |
| 91. | (8) - Summons rescue and other emergency services as soon as danger is discovered? | | | |

| | | | | |
|---|---|---|---|---|
| 92. | (9) - Take appropriate steps when unauthorized persons approach to enter a permit space while entry is underway? | | | |
| 93. | (10) - Perform non-entry rescue as specified by employer's procedures? | | | |
| 94. | (11) - Perform no other duties that might interfere with attendants' primary duty to monitor and protect the entrants? | | | |
| | **Section J (Duties of the Entry Supervisors)** | | | |
| 95. | (1) - Knowledge of the hazards that may be faced upon entry? | | | |
| 96. | (2) - Verifies that proper entries have been made on the permit (i.e., tests conducted, all procedures and equipment in place)? | | | |
| 97. | (3) - Terminates entry and cancels permit as required? | | | |
| 98. | (4) - Verifies that rescue services are available and that means of summoning them are operable? | | | |
| 99. | (5) - Removes unauthorized persons who enter or attempt to enter the permit space during entry operations? | | | |
| 100. | (6) - Determine whenever permit entry operation is transferred, that entry operations remain constant and conditions remain acceptable? | | | |
| | **Section K (Rescue and Emergency Service)** | | | |
| 101. | 1. Off-site rescue service members must be: | | | |
| 102. | (i) Have ability to respond in a timely manner? | | | |
| 103. | (ii) Proficient with rescue-related tests and equipment? | | | |
| 104. | (iii) Selected rescue team or service:<br>[A] Has the capability to reach the victim(s) within a time frame that is appropriate for the permit space hazard(s) identified; and<br>[B] Is equipped for and proficient in performing the needed rescue services. | | | |
| 105. | (iv) Provided information on hazards that may be encountered? | | | |
| 106. | (v) Provided access to all permit spaces from which rescue may be necessary? | | | |
| 107. | (2) (i) Each member of the rescue service is provided with and trained in the use of PPE and required rescue equipment? | | | |
| 108. | (ii) Each member of rescue service is trained to perform the assigned duties? | | | |
| 109. | (iii) Each member of the rescue service must be trained in basic first aid and CPR - At least one member holding a current certification for first aid and CPR shall be available? | | | |
| 110. | (iv) Each member of rescue service must practice making permit entry rescue at least one every 12 months? | | | |
| 111. | (3) Retrieval systems shall be used whenever possible to facilitate non-entry rescue? | | | |

| **Answer the following questions only if the employer has chosen to use alternate procedures instead of the permit entry program** | | | | |
|---|---|---|---|---|
| **Item** | **Description** | **Yes** | **No** | **N/A** |
| | **Section C Subparagraph 5 (Alternate Procedures)** | | | |
| 1. | 2. (i) An employer need not comply with paragraph d thru f and h thru k if: | | | |

| | | | | |
|---|---|---|---|---|
| 2. | (A) Employer can demonstrate that the only hazard is an actual or potential hazardous Atmosphere? | | | |
| 3. | (B) The employer can demonstrate that forced air ventilation alone is sufficient to maintain the space safe for entry? | | | |
| 4. | (C) Monitoring and inspection data developed to support A and B? | | | |
| 5. | (D) Initial entry is accomplished using the requirements of paragraphs d thru k? | | | |
| 6. | (E) Determinations and supporting documents are provided to each employee who enters the permit space? | | | |
| 7. | (F) Entry into the space is performed under the terms of paragraph (c)(5)(ii) | | | |
| 8. | (ii) Requirements to enter space under (c)(5)(i) | | | |
| 9. | (A) Conditions that make it unsafe to remove cover shall be eliminated before cover is removed? | | | |
| 10. | (B) Opening promptly guarded by railing or temporary barrier? | | | |
| 11. | (C) Internal atmosphere tested prior to entry | | | |
| 12. | (1) Oxygen content | | | |
| 13. | (2) Flammable gases and vapors | | | |
| 14. | (3) Potential Toxic contaminants | | | |
| 15. | (D) Absence of any hazardous atmosphere is space when an employee is in the space? | | | |
| 16. | (E) Continuous forced air ventilation? | | | |
| 17. | (F) Periodic testing of air in space? | | | |
| 18. | (G) Evacuation if hazardous atmosphere is detected? | | | |
| 19. | (H) Employer verifies that space is safe for entry and that all requirements under this paragraph have been met in writing? | | | |

# Confined Space Entry Permit

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

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

## Acceptable Entry Conditions

| | | | |
|---|---|---|---|
| **1. Affected Departments and/or Personnel Notified?** | N/A | Yes | No |
| Departments that were notified: | | | |
| **2. Confined Space Perimeter Setup and Secure?** | N/A | Yes | No |
| **3. Atmospheric Testing?** | N/A | Yes | No |

| Air Monitoring | Acceptable Limits | Prior to Ventilation | After Ventilation | Reading/ Time | Reading / Time | Reading/ Time | Reading/ Time | Reading/ Time | Reading/ Time |
|---|---|---|---|---|---|---|---|---|---|
| O2 | 19.5-23.5% | | | | | | | | |
| % LEL | <10% | | | | | | | | |
| CO | <25 PPM | | | | | | | | |
| H2S | <10 PPM | | | | | | | | |
| Other | <PEL/TLV | | | | | | | | |

| | | |
|---|---|---|
| Tested By: | Meter ID: | Last Calibration Date: |

| | | | | |
|---|---|---|---|---|
| **4. Lockout Tagout of Hazardous Energy Sources** | Prior to entry | N/A | Yes | No |
| **5. Space Ventilation** | | | | |
| Ventilation Equipment Used | | | | |
| Fan ID: / Fan CFM / Other: | | | | |
| **6. Communication Method** ○ Radio ○ Voice ○ Visual ○ Cell Other: | | | | |
| **7. Lighting** | | N/A | Yes | No |
| Lighting used: | | | | |
| **8. PPE Required** | | N/A | Yes | No |
| ○ Hard Hat ○ Safety Glasses ○ High Visibility ○ Gloves Other: | | | | |
| **9. Other Permits Attached** (i.e., LOTO Checklist and Hot Work Permit) | | N/A | Yes | No |
| **10. Rescue** | | | | |
| Rescue Equipment | | N/A | Yes | No |
| Rescue Equipment Used: | | | | |
| Rescue and Emergency Services Available | | N/A | Yes | No |
| Rescue and Emergency Services Used: | | | | |

*When using 3rd party rescue services; provide additional contact information and rescue plan to this permit

## Equipment List

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

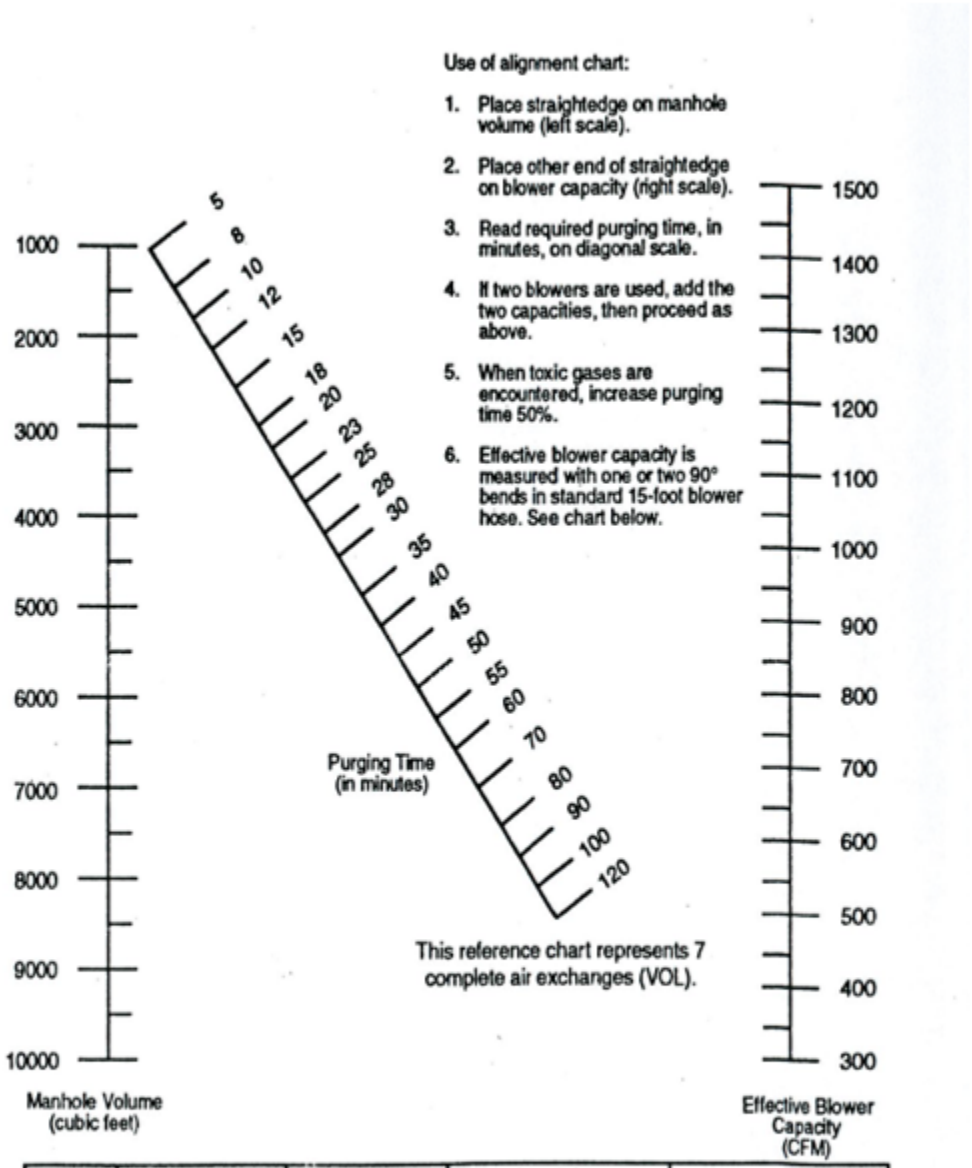
| | | | |
|---|---|---|---|
| Do Tools need to Be Intrinsically Safe? | N/A | Yes | No |

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

Supervisors Signature: _____

| | | | |
|---|---|---|---|
| Attendants: | | | |
| Entrants: | | | |

## Purging Diagram




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

* Use blower capacity with two 90° bends unless blower has been certified with coupled hose with one 90° bend. CSE 6 0692

# CRANE USAGE POLICY

Kitt Construction & Development, LLC has developed these written guidelines for safe crane operation practices. These guidelines are drawn from WAC 296-155 and are not all

encompassing. If there are any questions, concerns or comments, please consult WAC 296-155 for the full details or a company Supervisor.

Note: Kitt Construction & Development, LLC mainly subcontracts out crane work to a subcontractor but we still require the crane checklist be completed and onsite for reference.

**Areas of Responsibility:**

While organizational structure of various construction activities may differ, the following are areas of responsibility for crane operations. A single individual may perform one or more of these responsibilities concurrently. Complete *"Supervisor Site Check List"* and retain at site.

1. **Crane Owner** – "Has custodial control of a crane by virtue of lease or ownership." (WAC 296-155-53401(3)) In some situations, the Crane Owner and the Crane User may be the same person or entity.
    a. Provide a certified crane that meets the specific job requirements defined by the Crane User.
    b. Provide a crane and all necessary components specified by the manufacturer, that meets the Crane User's requested configuration and capacity.
    c. Provide all applicable load/capacity chart(s) and diagrams
    d. Provide additional technical information when requested by the Crane User.
    e. Provide field assembly, disassembly, operation, and maintenance information.
    f. Establish inspection, testing, and maintenance program.
    g. Using qualified personnel for maintenance, inspection, repair, transport, dis/assembly, etc.

2. **Crane User** – "Arranges the crane's presence on a work site and controls its use there. (WAC 296-155-53401(4))
    a. Comply with regulations and manufacturer information.
    b. Using qualified people as supervisors for crane activities.
    c. Ensuring the crane is in proper operating condition prior to initial use at work site.
        i. Verifying that the Crane Owner has provided crane certification.
        ii. Verifying that crane inspections have been performed.
    d. Verifying the crane has the necessary lifting capacity to perform the proposed lifting operations in the planned configuration.
    e. Using certified operators, qualified riggers, qualified signal persons and a competent and/or qualified person for inspections, maintenance, repair, transport, assembly and disassembly.
    f. Ensuring the operator is made aware of adjustments or repairs that have not yet been completed.
    g. Ensure all personnel involved are aware of their responsibilities, assigned duties, and the associated hazards.
    h. Ensure the inspection, testing and maintenance programs specified by the crane owner are followed.

3. **Site Supervision** – "Exercises supervisory control over the work site on which a crane is being used and over the work that is being performed on that site." (WAC 296-155-53401(5))
    a. Ensuring the crane is certified prior to initial site usage.
    b. Determining if additional regulations are applicable to crane operations.
    c. Ensuring that a qualified person is designated as the Lift Director.
    d. Ensuring that crane operations are coordinated with other jobsite activities that will be affected by or will affect the lifts.
    e. Ensuring the area for the crane is prepared:
        i. Access roads
        ii. Sufficient room for assembly/disassembly
        iii. Operating area that is suitable for the crane with respect to levelness, surface conditions, support capability, proximity to power lines, excavations, etc.
        iv. Traffic control is in place to restrict unauthorized access to the crane's working area.
    f. Ensuring that conditions which may adversely affect crane operations are addressed, such as:
        i. Poor soil conditions;
        ii. Wind velocity or gusting winds;
        iii. Heavy rain;
        iv. Fog;
        v. Extreme cold;
        vi. Artificial lighting.
    g. Allowing crane operation near electric power lines only when the requirements the power line section of this policy have been met.
    h. Permitting special lifting operations and/or critical lifts only when equipment and procedures required by regulation, the crane manufacturer, or a qualified person are employed such as:
        i. Multiple crane lifts
        ii. Multiple load line lifts
        iii. Lifting personnel
        iv. Pick and carry operations
        v. Mobile/articulating cranes operating on barges
    i. Ensuring the crane is inspected and maintained.
    j. Ensuring crane operators are certified.
    k. Ensuring the rigging crew is supervised by a qualified person.
    l. Ensuring that work involving the assembly and disassembly of a crane is supervised by an assembly/disassembly director.
    m. Ensuring crane maintenance is performed by a designee.

4. **Lift Director** – "Directly oversees the work being performed by a crane and the associated rigging crew." (WAC 296-155-53401(6))
    a. Being present at the job site during lifting operations and overseeing the lifting operations.
    b. Ensuring the area needed for crane operations has been prepared before operations commence.

c. Ensuring necessary traffic controls are in place to restrict unauthorized access to the crane's work area.
d. Ensuring personnel involved understand their responsibilities, assigned duties, and associated hazards.
e. Addressing safety concerns and deciding if it is necessary to overrule those concerns and directs crane operations to continue. In all cases, the manufacturer's criteria for safe operation and the requirements of this chapter and any other applicable safety and health standards must be adhered to.
f. Appointing the signal person(s), ensuring they are qualified, and conveying that information to the crane operator.
g. Ensuring compliance when working near power lines or lifting personnel.
h. Ensuring the load is properly rigged by a qualified rigger.
i. Ensuring precautions are implemented in special lifting operations and/or critical lifts.
j. Informing the crane operator of the weight of loads to be lifted, as well as the lifting, moving, and placing locations for these loads.
k. Obtaining the crane operator's verification that this weight does not exceed the crane's rated capacity.

**5. Crane Operator –**

a. Reviewing the requirements for the crane with the Lift Director before operations.
b. Knowing what types of site conditions could adversely affect the operation of the crane and consulting with the Lift Director concerning the possible presence of those conditions.
c. Understanding and applying the information contained in the crane manufacturer's operating manual
d. Understanding the crane functions and limitations as well as its particular operating characteristics
e. Using the crane's load/capacity chart(s) and diagrams and applying all notes and warnings related to the charts to confirm the correct crane configuration to suit the load, site, and lift conditions.
f. Refusing to operate the crane when any portions of the load or crane would enter the prohibited zone of energized power lines except as defined in the power line section of this policy.
g. Performing daily inspection as specified by the Crane Owner, Crane Manufacturer, applicable Regulations and Industry Standards.
h. Promptly reporting the need for any adjustments or repairs to the appropriate person.
i. Following applicable lockout/tagout procedures.
j. Not operating the crane when physically or mentally unfit.
k. Ensuring that all controls are in the off or neutral position and that all personnel are in the clear before energizing the crane or starting the engine.
l. Not engaging in any practice that will divert their attention while actually operating the crane controls.
m. Testing the crane function controls that will be used and operating the crane only if those function controls respond properly.

n. Operating the crane's functions, under normal operating conditions, in a smooth and controlled manner.
o. Knowing and following the procedures specified by the manufacturer or approved by a qualified person, for assembly, disassembly, setting up, and reeving the crane.
p. Knowing how to travel the crane.
q. Observing each outrigger during extension, setting, and retraction or using a signal person to observe each outrigger during extension, setting, or retraction.
r. Ensuring that the load and rigging weight(s) have been provided.
s. Calculating or determining the net capacity for all configurations that will be used and verifying, using the load/capacity chart(s), that the crane has sufficient net capacity for the proposed lift.
t. Considering all factors known that might affect the crane capacity and informing the lift director of the need to make appropriate adjustments.
u. Knowing the standard and special signals and responding to such signals from the person who is directing the lift or a qualified signal person.

**Crane Crew Member Requirements**

1. Crane Operator (WAC 296-155-53300)
    a. NCCCO certification or equivalent
        i. Written exam by crane type
        ii. Practical exam by crane type
        iii. Maximum of 5 year qualification period.
    b. Experience
        i. Number of hours of Crane Related Experience equal to or greater than the amounts identified in "Table 3" under WAC 296-155-53300. Documented through declaration or log.
        ii. Number of hours of Actual Crane Operating Experience equal to or greater than the amounts identified in "Table 3" under WAC 296-155-53300. Documented through declaration or log.
    c. Successfully passing a substance abuse test.
2. Signal Person (WAC 296-155-53302)
    a. A qualified Signal Person is required whenever:
        i. The point of operation is not in full view of operator.
        ii. View of direction of travel is obstructed
        iii. Site specific safety concerns where the Operator, Lift Director, or Rigger determines it is necessary.
    b. Third Party Qualified Evaluator or Employer's Qualified Evaluator
    c. Oral or written test and a practical test is required by signal type
    d. Maximum of 5 year qualification period.
    e. Documentation must be available at job site and denote qualified signal types.
3. Rigger (WAC 296-155-53306)
    a. A qualified Rigger is required whenever workers are within the fall zone, hooking, unhooking, or guiding a load, or doing performing the initial connection of a load to a component or structure.
    b. Third Party Qualified Evaluator or Employer's Qualified Evaluator
    c. Written test and practical test is required by rigging type

d. Maximum of 5 year qualification period.
e. Documentation must be available at job site and denote qualified rigging types.

4. Assembly/Disassembly Director (WAC 296-155-53402)
    a. Competent and Qualified Person.
5. Crane repair, inspection, and maintenance employees (WAC 296-155-53304)
    a. Maintenance and repair personnel must meet the definition of a Qualified Person with respect to the crane/derrick and maintenance/repair tasks performed.
    b. Allowed to operate the crane / derrick only where:
        i. Operation is limited to those functions necessary to perform maintenance, inspect or verify the performance of the crane/derrick.
        ii. The personnel operate the crane/derrick under the direct supervision of a certified operator.

**Crane Inspection and Certification**

1. Crane Inspection Requirements (WAC 296-155-53405)
    a. Post – Assembly
        i. Performed by Qualified Person (Assembly/Disassembly Director)
        ii. Inspection form must be kept on crane while on site
    b. Shift
        i. Performed by Competent Person (Crane Operator)
    c. Monthly
        i. Performed by Competent Person
        ii. Inspection forms must be kept for at least three months.
    d. Annual
        i. Performed by Accredited Crane Certifier
        ii. Documentation must be kept on crane.
    e. Repaired or Adjusted
        i. Performed by Qualified Person
    f. Modified
        i. Performed by Accredited Crane Certifier
        ii. Documentation must be kept on crane.
    g. Cranes not in regular use (idle for 3 months or more)
        i. Qualified person
2. Crane Certification (WAC 296-155-53144 through 296-155-53214)
    a. Must be performed by an accredited crane certifier
        i. Temporary certificate of operation is issued by the crane certifier and valid until crane certification is received from DOSH.
    b. The accredited crane certifier will review the monthly and annual inspection documentation.
    c. The accredited crane certifier will perform a visual an inspection of the crane.
    d. The accredited crane certifier will observe operational tests of the crane.
    e. Proof Load Tests:
        i. Includes a proof load test on all hoist lines and needs to be at least 100% but not to exceed 110% as configured.
        ii. If the crane is to be utilized in an “on rubber” configuration, a free rated load test is also required.

f. If any of the following occur, the crane is decertified and must be inspected by an accredited crane certifier and DOSH's crane certification section needs to be notified:
    i. Contact with an energized power line
    ii. Any overload other than proof load testing or one that has been approved in writing in advance by the crane manufacturer or RPE
    iii. Any significant modifications or significant repairs of a load sustaining/bearing part that affects the safe operations of the crane/derrick.
    iv. Any deficiency that affects the safe operation of the crane or derrick that has been identified by a qualified person.
g. Tower Cranes additional certification items (WAC 296-155-53206)
    i. Parts must be inspected by an accredited crane certifier prior to assembly, following erection of the tower crane, after each climbing operation, or reconfiguring the boom, jib, or counter-jib before placing the crane in service.
    ii. The accredited crane certifier must verify a registered professional structural engineer has certified that the crane foundations/structural supports and underlying soil are adequate support.
    iii. Nonstandard tower crane bases must be reviewed and acknowledged as acceptable by an independent registered professional structural engineer.

**Safety Devices (WAC 296-155-53410) and Operator Aids (WAC 296-155-53412)**

1. Safety Devices
    a. In the event safety devices are not properly functioning, operation must not begin.
    b. In the event a device stops working properly during operation, the operator must safely stop operations.
    c. Alternative measures are not permitted to be used:
    d. Safety Devices:
        i. Crane level indicator (can be either built in or available on the crane)
        ii. Boom stops (except for derricks and hydraulic booms)
        iii. Jib stops (if a jib is attached – except for derricks)
        iv. Cranes with foot pedal brakes must have locks (except for portal cranes and floating cranes)
        v. Hydraulic outrigger jacks and hydraulic stabilizer jacks must have an integral holding device/check valve
        vi. Horn (must be either built in or a portable horn available to the operator)
2. In the event operational aids are inoperative or malfunctioning, the crane and/or device manufacturer's recommendations for continued operations or shutdown of the crane must be followed until the problems are corrected. Without such recommendations and any prohibitions from the manufacturer against further operation, the following requirements apply:
    a. Recalibration or repair of the operational aid must be accomplished as soon as is reasonably possible, as determined by a qualified person.
    b. Temporary alternative measures must be in force and effect.

**Assembly/Disassembly (WAC 296-155-53402)**

1. Assembly/disassembly must be directed by a qualified and competent Assembly/Disassembly Director.
2. Assembly/disassembly must comply with all applicable manufacturer prohibitions and either manufacturer assembly/disassembly procedures or employer procedures developed by a qualified person.
3. The Assembly/Disassembly Director must visually inspect the components and attachments to ensure that they meet manufacturer's recommendations.
4. A pre-assembly/disassembly safety meeting will be held by the Assembly/Disassembly Director and shall include all crew members.
    a. The safety meeting shall address the crew members tasks, hazards associated with their tasks, and hazardous positions/locations that need to be avoided.
    b. The "*Crane Assembly/Disassembly Safety Log*" shall be completed and turned in.
    c. In the event any crew member takes on a different task or new personnel are added, the safety shall be reconvened.
5. The Assembly/Disassembly director shall perform a post assembly inspection, document the results of the inspection on the "*Post Assembly Inspection*" form, and put the inspection record in the crane.

**Power line safety (WAC 296-155-53408)**

1. Identify work zone which is either:
    a. Marked lifting area and counterweight tail swing boundaries and prohibit operation past boundaries; or
    b. 360 degrees from crane's center of rotation to the crane's maximum working radius.
2. Determine if any part of the equipment, load (including rigging) or load line could get closer than 20' (<350KV) or 50' (>350KV) to a power line.
    a. If outside of these limitations, crane operations are allowed.
    b. If inside of these limitations:
        i. Option 1 – De-energize and ground the power line.
        ii. Option 2 – Maintain a 20' clearance.
        iii. Option 3 – Ask Utility for voltage and use "Table A".
            - Option 2 or 3 require Encroachment Prevention Measures:
                - ✓ Planning Meeting
                - ✓ Non-conductive tag lines (if used)
                - ✓ Elevated warning lines, barricade or line of signs.
                - ✓ Plus (Choose 1) – Spotter, proximity alarm, warning device, or range limiter.
    c. If inside limitations established by "Table 4":
        i. Must demonstrate and document that staying outside of the zone is infeasible.
        ii. Must demonstrate and document that it is infeasible to de-energize and ground.
            - All of the following items are required as a minimum:
                - ✓ Power line owner sets minimum approach distance.
                - ✓ Planning meeting / Pre-lift meeting

- ✓ Dedicated spotter
- ✓ Elevated warning line or barricade
- ✓ Insulating link / device
- ✓ Non-conductive rigging
- ✓ Range limiter (if equipped)
- ✓ Non-conductive tag line (if used)
- ✓ Barricades – 10' from equipment
- ✓ Limit access to essential workers
- ✓ Properly ground crane

**General Requirements (WAC 296-155-53400)**

1. Cranes must be certified annually by an accredited certifier.
2. All crane operators must be certified.
3. Cranes must meet the requirements for design, construction, installation and testing as prescribed in the applicable ASME standard at the time the crane or derrick was manufactured.
4. Warning decals and placards must be installed and legible
5. The operators manual and load rating chart, written in the English language with customary grammar and punctuation, must be in the operators cab or station when the crane is in operation.
6. All manufacturer procedures applicable to the operational functions of cranes/derricks, including its use with attachments must be complied with.
7. A portable fire extinguisher with a basic minimum rating of 10BC must be installed in the cab or at the machinery housing.
8. Personal belonging must be stored in such a manner as to not interfere with access or operation of the crane.
9. Rigging gear, tools, oil cans, waste, and other articles must be stored in the toolbox or another appropriate location and must not be permitted to lie loose in or about the cab or operator's work station.
10. Operating controls must be properly marked to indicate the function of the controls in each position.
11. Before starting the engine, the operator must verify that all controls are in the proper starting position and that all personnel are in the clear.
12. While in operation, reciprocating, rotating or moving parts or equipment must be guarded if such parts are exposed to contact by employees or otherwise create a hazard.
13. Neither the load nor the boom is allowed to be lowered below the point where less than two full wraps of rope remain on their respective drums.
14. All exhaust pipes, turbochargers, and charge air coolers must be guarded or insulated in areas where contact by employees is possible in the performance of normal duties and are discharged in a direction away from the operator.
15. Friction mechanisms must be of a size and thermal capacity to sufficiently control all rated loads with the minimum recommended reeving.
16. Hydraulic drums must have an integrally mounted holding device or internal static brake to prevent load hoist movement in the event of hydraulic failure.

17. Whenever internal combustion engine powered crane/derrick exhausts in enclosed spaces, tests must be made and recorded to see that employees are not exposed to unsafe concentrations of gases or oxygen deficient atmospheres.
18. If access to the cab roof is necessary, a ladder or steps must be provided to give access to a cab roof.
19. Guardrails, handholds, and steps must be provided on cranes for easy access to the cab in accordance with Parts C-1 and J of 296-155.
20. Platforms and walkways must have antiskid surfaces.
21. Fuel tank filler pipe must be located in such a position, or protected in such a manner, as to not allow spill or overflow to run onto the engine, exhaust, or electrical equipment.
22. All crane hook ball assemblies and load blocks must be labeled with their rated capacity and their weight.
23. Crane hooks must be equipped with latches or self-locking devices.
24. Replacement parts must be at least equal to the original manufacturer's specifications.
25. Erect and maintain control lines, warning lines, railings or similar barriers to mark the boundaries of swing radius hazard areas.
26. Where available, hoisting routes that minimize the exposure of employees to hoisted loads must be used.
27. Cranes with boom free fall (live boom) are prohibited from being used when:
    a. An employee is in the fall zone of the boom or load
    b. An employee is being hoisted
    c. The load or boom is directly over a power line or over any part of the area listed in Table 4
    d. The load is over a shaft that contains employees
    e. The load is over a cofferdam, except where there are no employees in the fall zone.
    f. Lifting operations taking place in a refinery or tank farm.
    g. Crane was manufactured after November 1, 1984.
28. Employees must not be allowed to ride on the hook or load.
29. The hoist rope must not be wrapped around the load.
30. All loads must be attached to the hook by means of suitable slings or other devices of sufficient lifting capacity.
31. When moving a load it must be well secured and balanced in the sling of lifting device before it is lifted more than a few inches.
32. The operator must not leave the controls while the load is suspended, except where all of the following are met:
    a. The operator remains adjacent to the crane and is not engaged in any other duties.
    b. The load is to be held suspended for a period of time exceeding normal lifting operations.
    c. Measures are implemented to restrain the boom hoist, telescoping, load, swing, and outrigger or stabilizer functions.
    d. Barricades or caution lines and notices are erected to prevent all employees from entering the fall zone.
33. While moving the load the lift and swing path must be clear of obstructions.
34. Before starting to lift the following conditions must be met:
    a. The hoist rope must not be kinked.

b. Multiple-part lines must not be twisted around each other.
c. The hook must be brought over the load in such a manner as to minimize swinging.
d. If there is a slack rope condition, it must be determined that the rope is seated on the drum and in the sheaves as the slack is removed.
e. The effect of wind, ice, and snow on equipment stability and rated capacity must be addressed.
f. If possible, the load must be free to be lifted.

35. During lifting operations, care must be taken that there is no sudden acceleration or deceleration of the moving load and that the boom or other parts of the crane do not contact any obstruction.
36. Any time the load is 90% or more of the maximum line pull, the operator must test the brakes by lifting the load a few inches and applying the brakes.
37. No modifications or additions which affect the capacity or safe operation of the crane can be made without the manufacturers' written approval.
38. Except for proof load testing, no crane is permitted to be loaded beyond the specifications of the load rating chart, unless authorized by the crane manufacturer.
39. Tag lines or restraint lines must be used when rotation or swinging of the load is hazardous or if the load needs guidance.
40. Safety devices and/or operational aids must not be used as a substitute for the exercise of professional judgment by the operator.
41. When a local storm warning has been issued, the crane operator must determine whether it is necessary to implement manufacturer recommendations for securing the crane.
42. Whenever there is a concern as to safety, the operator has the authority to stop and refuse to handle loads until a qualified person has determined that safety has been assured.
43. Where the crane has been taken our of service, a tag must be placed in the cab or at the operator station stating that the equipment is out of service and is not to be used.
44. If adjustments or repairs are necessary, the operator must, in writing, promptly inform the person designated by the employer to receive such information and, where there are successive shifts, to the next operator.
45. A preventative maintenance program must be established based on the recommendation of the crane/derrick manufacturer.

**Mobile Cranes – Operations (WAC 296-155-53715)**

1. All manual brakes must be tested prior to operation
2. Boom hoists that have manual brakes must also have mechanical locking devices that can be engaged to prevent inadvertent lowering of the boom.
3. On wheel-mounted cranes, loads must only be lifted in areas permitted by the crane manufacturer.
4. Cranes utilizing rolling outriggers must use load charts from the crane manufacturer or and RPE that specifically address this configuration. If the crane manufacturer does not address the use of rolling outriggers while some of the crane's weight is on its wheels, then the "on rubber" chart must be used.

5. While in transit, the boom should be carried in line with the direction of motion and the superstructure must be secured against rotation except when negotiating turns when there is an operator in the cab or the boom is supported on a dolly.
6. A crane with or without a load must be traveled in the configuration recommended by the crane manufacturer.
7. When rotating the crane, sudden starts and stops must be avoided. Rotational speed must be such that the load does not swing out beyond the radius at which it can be controlled.
8. A tag or restraint line must be used when rotation of the load is hazardous.
9. Cranes must not be operated without the ballast or counterweight being in place as specified by the manufacturer.
10. The crane must be leveled per the crane manufacturer's recommendation.

**Articulating Boom Cranes – Operations (WAC 296-155-53815)**

1. The operator must not engage in any practice that diverts their attention while actually engaged in operating the crane.
2. Stabilizers/outriggers must be visible to the operator or to a signal person during extension or setting.
3. When the crane is equipped with stabilizers/outriggers, they must be extended and set per manufacturer's recommendations.
4. Crane supports for individual stabilizer/outrigger pads must be level to the manufacturer's specifications or those of a qualified person.
5. In transit the boom must be carried in stowed position, as recommended by the manufacturer.
6. The crane must not travel with a load on the hook unless allowed by the manufacturer.
7. Articulating boom cranes must not be used with suspended work platforms (baskets).

**Tower Cranes**

Tower Cranes – General (WAC 296-155-53900)
Tower Cranes – Operations (WAC 296-155-53915)
Self-Erecting Tower Cranes – General (WAC 296-155-54100)
Self-Erecting Tower Cranes – Operations (WAC 296-155-54115)

**Additional Policies:**

Special Lifting Situations / Critical Lifts
- Personnel (WAC 296-155-547 through WAC 296-155-55405)
- Multiple cranes or multiple load line (296-155-53400-41)
- Traveling a crane with a load (296-155-53400-34)

Rigging Policy (WAC 296-155-556 through WAC 296-155-56220)

# SUPERVISOR SITE CHECK LIST- CRANE

| Yes | No | |
|---|---|---|
| | | **Designated Site Supervisor Name:_____ (ASME B30.5-2007 5-3.1.3.2.1)** |
| ☐ | ☐ | Crane meets initial requirements. |
| ☐ | ☐ | Assembly and disassembly supervised by qualified personnel. |
| ☐ | ☐ | Lift Director is appointed and qualified. |
| ☐ | ☐ | Rigging crew is supervised by qualified personnel. |
| ☐ | ☐ | Crane operations are coordinated with other job site activities. |
| ☐ | ☐ | Permitting for Critical Lifts |
| ☐ | ☐ | Maintenance is performed. |
| ☐ | ☐ | Access roads are adequate. |
| ☐ | ☐ | Sufficient room to assemble and disassemble. |
| ☐ | ☐ | Work area is suitable for crane operations and adverse conditions addressed. (area is level, free of underground utilities, proper distance from power lines, traffic controls etc) |
| | | **Designated Lift Director Name:_____ (ASME B30.5-2007 5-3.1.3.2.2)** |
| ☐ | ☐ | Qualified and present during operations. |
| ☐ | ☐ | Work area is suitable for crane operations and adverse conditions addressed. (area is level, free of underground utilities, proper distance from power lines, traffic controls etc) |
| ☐ | ☐ | Traffic controls in place. |
| ☐ | ☐ | Personnel involved in operations understand duties and hazards. |
| ☐ | ☐ | Crane crew informed of weight, radius, and placement of loads. |
| ☐ | ☐ | Load is properly rigged and balanced before lifting more than a few inches. |
| | | **Designated Signal Person Name:_____(ASME B30.5-2007 5-3.3)** |
| ☐ | ☐ | Signal person qualified and conveyed to crane crew. |
| ☐ | ☐ | Signal person knows standard hand a voice signals. |
| | | **Designated Rigging Crew Names: _____** |
| ☐ | ☐ | Rigging crew qualified and understand basic crane functions. |
| ☐ | ☐ | Rigging crew conveyed to crane crew. |
| ☐ | ☐ | Rigging crew knows load placement, weight, and rigging to be used. |
| ☐ | ☐ | Rigging crew supervised by qualified personnel. |
| | | **Crane-Certification and Documentation (ASME B30.5-2007 5-2)** |
| ☐ | ☐ | Crane Certifications (annual, quadrennial, tags) by certified inspector |
| ☐ | ☐ | Crane Operators Manual (containing load charts, diagrams, different configurations, by serial number) |
| ☐ | ☐ | Crane Maintenance Program (inspection, testing, using qualified technicians) |
| | | **Crane Operator Names:_____(ASME B30.5-2007 5-3.1.2)** |
| ☐ | ☐ | Valid NCCCO. |
| ☐ | ☐ | Operator qualified to operate type of crane. |
| ☐ | ☐ | Know crane functions and limitations, load charts, weight, radius and location of loads. |
| ☐ | ☐ | Calculating net capacity and verifying that the crane will safely lift the load. |
| ☐ | ☐ | Review requirements and hazards with Lift Director prior to operations. |
| ☐ | ☐ | Perform maintenance and daily inspections. |
| ☐ | ☐ | Operator notified of repairs prior to operating. |
| ☐ | ☐ | Halt work in unsafe conditions. |

By signing the above I certify that I posses the necessary qualifications to perform the duties that I have been assigned. I also understand my duties and responsibilities, and that the above is not all encompassing.

Site Supervisor Signature: _____ Lift Director Signature: _____

Rigging Supervisor Signature: _____ Signal Person Signature: _____

Operator Signature: _____

# DRUG & ALCOHOL POLICY

The Company is committed to providing its employees with a safe and productive work environment. In keeping with this commitment, it maintains a strict policy against the use of alcohol and the unlawful use of drugs in the workplace. Consequently, no employee may consume or possess alcohol, or use, possess, sell, purchase or transfer illegal drugs at any time while on the Company's premises or while using the Company vehicles or equipment, or at any location during work time.

No employee may report to work with illegal drugs (or their metabolites) or alcohol in his or her bodily system. The only exception to this rule is that employees may engage in moderate consumption of alcohol that may be served and/or consumed as part of an authorized Company social or business event. "Illegal drug" means any drug that is not legally obtainable or that is legally obtainable but has not been legally obtained. It includes prescription drugs not being used for prescribed purposes or by the person to whom it is prescribed or in prescribed amounts. It also includes any substance a person holds out to another as an illegal drug.

Any violation of this policy will result in disciplinary action, up to and including termination.

Any employee who feels he or she has developed an addiction to, dependence upon, or problem with alcohol or drugs, legal or illegal, is strongly encouraged to seek assistance before a violation of this policy occurs. Any employee who requests time off to participate in a rehabilitation program will be reasonably accommodated. However, employees may not avoid disciplinary action, up to and including termination, by entering a rehabilitation program after a violation of this policy is suspected or discovered.

**Fit for Duty Policy**

The Company recognizes that the state of our employee's health affects their job performance and the kind of work they can perform. The company also recognizes that drug and alcohol abuse ranks as one of the major health problems in the world.

To encourage an enlightened viewpoint toward these issues and to provide guidelines for consistent handling of alcohol and drug usage situations, the Company has formulated the following Fit for Duty policy to:

1. Assure employees are fit for duty and able to conduct business in a safe productive and healthy manner.
2. Provide a drug-free, healthful, safe and secure work environment.
3. Prohibit the unauthorized use, possession, sale or distribution of alcoholic beverages and controlled substance in the work environment.
4. Provide assistance for employees whose substance abuse problems affect their ability to perform their duties.
5. Comply with the Drug-Free Workplace Act of 1988.

**Applicability:** Every employee of the company, including owners is covered by this policy when on company property and during breaks in the workday.

**Statement of Policy:** The unauthorized or unlawful manufacture, distribution, dispensation, possession or use of alcohol or a controlled substance on company premises, including jobsites, while conducting company business off company premises, while in transit to or from jobsites and at company functions is absolutely prohibited. Violations of this policy will result in disciplinary action up to and including, termination and may also result in legal consequences.

Employees must not report to duty, perform service or enter company property, including company vehicles or job sites, under the influence of or after having used, controlled substances or alcohol. For the purposes of this policy, any employee testing positive, adulterated or unsuitable for a controlled substance (or its metabolite) or alcohol, in his/her urine, is conclusively presumed to be under the influence of such substance.

**Substances Covered:** Substances covered by this policy are those that may impair safe and productive performance of the essential job functions:

1. Alcohol containing beverages;
2. Drugs that are designated by Federal and State law as controlled substances including marijuana.
3. Over-the-counter medication and prescription drugs which alone or in combination, impair safe and productive performance of the essential job function, to comply with ADA.

**Policy on drug screening:** All final applicants for jobs with Kitt Construction & Development, LLC must undergo drug screening. Employees who are rejected for employment due to positive, adulterated or unsuitable drug screening will be charged for the cost of the test.

Drug screening clearance will be completed before a hiring decision is made and a work assignment is given.

Drug screening will be administered for some or all of the following substances: amphetamines, methamphetamines, cocaine, opiates (codeine/morphine), marijuana (THC), phencyclidine (PCP), barbiturates, benzodiazepine(Valium and others), methadone, methaqualone (Quaaludes), Propoxyphene (Darvon), ethanol (alcohol).

In emergency hiring situations, exceptions may be made to this policy and applicants may be placed on the payroll on a provisional basis for up to one week. In such cases, a drug screening must be completed within 3 days of the date the person begins work, continued employment beyond the provisional status is based on a passing the drug screening.

Any employee who is involved in an injury-causing accident requiring treatment at a medical facility, will be required to submit to a drug screening.

If facts, circumstances, physical evidence, physical symptoms or a pattern of performance or behavior cause a supervisor to reasonably conclude that an employee may have used or be under the influence of or intoxicated by alcohol or a controlled substance, the matter will be

investigated for “reasonable cause”. If the supervisor and company owners determine that “reasonable cause” exists then a test will be required. Examples of “reasonable cause” may include, but are not limited to:

1. Excessive or unusual absenteeism.
2. Reporting for work in a condition that affects job performance.
3. Documented unsatisfactory performance.
4. Serious motor vehicle offenses while on duty and/or in company vehicles.

All employees are subject to random, periodic, unannounced drug tests at any time the company deems necessary to maintain a drug-free workplace. This testing is done to ensure continually safe, healthy, drug-free workplace for its employees. The random selection will be done on a lottery basis. Every employee has an equal chance of being chosen every time a random selection is made.

Employees who are off work for any reason for a period shorter than eight weeks, during which their employment relationship with the company is maintained, will not be asked to submit to drug screening upon return to work.

Employees who are off work for any reason for a period longer than eight weeks, during which their employment relationship with the company is maintained, will be treated as new applicants and will be asked to submit to a drug screening.

Employees whose employment relationship with the company is terminated for any reason will be treated as new applicants if re-employed.

**Testing Philosophy:** The Company affirms the necessity to uphold a high regard for privacy and dignity of the individuals in the screening process. Drug screening will be conducted according to uniform standards.

The fact that a test has been requested or administered, the results of that test and communications with the employee regarding substance use or abuse, are considered private and confidential. Access to that information is limited to those who have legitimate need to know.

At the time a urine drug screening is requested, the employee may, at his/her expense, include a blood drug screening. The employee must notify the staff person in charge of human resources of intent to submit a blood sample, in advance and must also notify the testing facility.

Any employee that is charged with selling drugs, illegal alcohol or drug usage or illegal possession may be suspended, at management discretion, pending resolution of the charges.

**Transportation:** In all circumstances of suspected drug or alcohol use, it is necessary to provide transportation for the individual. If the employee refuses to accept transportation and attempts to drive, he/she will be advised that the authorities will be notified immediately.

**Test Refusal:** An employee's refusal to take a test or refusal of medical treatment which a prudent person would obtain in order to avoid a test, will be treated as insubordination and failure to obey a direct order. It will be grounds for termination as will sample tampering and falsification of the consent form.

Applicants sample tampering during the pre-employment evaluation, falsification of the consent form or refusal to submit a sample will be grounds for disqualification from employment or termination if placed on the payroll in provisional status.

Dilution, adulteration or substitution of a specimen by a donor is considered a refusal to be tested, which will preclude hiring an applicant or will initiate disciplinary action which may include termination of employment.

**Positive Test Results:** For the purpose of this policy, positive, adulterated or unsuitable test results will be defined as (1) the presence of drugs which are designated by federal and state law as controlled substances, or (2) a urine alcohol content great than .00.

**Regarding Current Employees:** All samples which test positive, adulterated or unsuitable will be confirmed. Employees who test positive, adulterated or unsuitable will have an opportunity to explain the result before any disciplinary action is taken. A positive, adulterate or unsuitable test result may result in suspension during treatment, employment during treatment under terms of reinstatement agreement or termination of employment, each at the sole discretion of company ownership. Employees will be allowed to return to work only after the company has received a negative test report.

The employee at his/her expense, will also be entitled to arrange to have a reputable testing facility test the same sample submitted to the original test facility. Accepted "chain of custody" procedures must be followed and the test facility must meet all of the standards set by the Federal Health Agencies for laboratory performance using certified Medical Technologists and Technicians. An employee may request the independent test by notifying an officer of the Company within two calendar days after the day the employee is informed of the test results.

**Regarding Job Applicants:** Should the initial screening test be positive, adulterated or unsuitable, the laboratory would conduct a second confirming test on the same sample to verify the results. Applicants who test positive, adulterated or unsuitable will be given an opportunity to explain the results. Explanations not accepted by management will result in disqualification of the applicant. Applicants placed on the payroll provisional status will not be considered for further employment.

**Reinstatement:** Employees who successfully complete a state-accredited drug/alcohol treatment program and who retest negative may, at the company's sole discretion, be conditionally reinstated to a position with the company. Successful completion shall include maintain the preventive course of aftercare prescribed by their drug or alcohol counselor or doctor and signing a Reinstatement Agreement. A reinstated employee is not guaranteed his/her original position with the company and may be offered any suitable position available at the time of reinstatement.

Employees who do not follow prescribed preventive maintenance treatments and/or who engage in drug or alcohol abuse which affects their job performance and/or violates the Reinstatement Agreement, will be subject to immediate termination.

**Employee Assistance Program (EAP):** It is the intent of Kitt Construction to encourage employees to correct problems associated with drug and alcohol use through an Employee Assistance Program. Northwest Employee Assistance will administer the employee assistance program. Assessment, counseling and referral services will be provided for employees and/or members of their immediate families up to three hours per family for each problem or issue.

All help for substance abuse problems is voluntary. A request for help may come directly as a confidential request from the employee or as the result of an intervention or referral by someone else. Employees who are having performance problems and receiving performance improvement counseling and employees who test positive, adulterated or unsuitable for drugs or alcohol will be advised to the availability of EAP.

The EAP is not intended to be a shield from disciplinary action. If an employee is experiencing performance problems or is pending a disciplinary action, a request for help will be treated as a separate but related issue. Disciplinary amnesty will not be granted to employees asking for assistance and referral. However, disciplinary action may be deferred pending successful completion of a treatment process. In such a situation, consideration of on-going employment will include the employee's willingness to release assessment details to the company, proof of completion of treatment and availability of work.

An employee who fails to enter, abandons or does not complete a prescribed treatment program, who fails to live up to the terms and conditions of the referral agreement or who fails to allow release of assessment/treatment information to the company will receive the previously withheld discipline, up to and including, termination.

The employee will be responsible for the cost of treatment beyond that provided by the Employment Assistance Program.

**Employee Responsibilities:** Employees should be aware of this policy and understand how to utilize the Employee Assistance Program. Furthermore, employees must, as a condition of employment, abide by the terms of this policy and report any conviction under a criminal drug statute for violations occurring on or off company premises while conducting company business. A report of a conviction must be made within five days after the conviction, as mandated by the Drug-Free Workplace Act of 1988.

An employee who takes medications that is accompanied by cautionary information regarding the use of machinery or operation of vehicles must notify his/her supervisor before operating machinery or vehicles.

**Management Responsibilities**

Managers and supervisors are responsible to administer this policy in an equitable and consistent manner. Managers and supervisors who knowingly disregard the requirements of this policy will be subject to disciplinary action up to and including, termination.

# EMERGENCY PROCEDURE PLAN

In the event of an emergency, contact the appropriate authorities. Each jobsite shall maintain a listing of emergency phone numbers. It is important to always identify potential witnesses.

**Chemical Spills**

If there has been a chemical spill, contact your supervisor. DO not attempt to clean up a chemical spill with any other chemicals until the spilled chemical is identified and proper clean-up procedures are found. If you are unsure of the chemical's properties, or it is spilled in massive quantities, evacuate the area and call. Try to have as much information ready as possible. National Response Center 1-800-424-8802 (National Hotline)

1. Size of spill
2. Date and Time
3. Type of Chemical
4. Exact location

**Injured People**

If the person is unconscious, not breathing, or has fallen from a height greater than their own height, **IMMEDIATELY** call **911.**
Get First Aid /CPR certified individuals to the scene as soon as possible. If the possibility of spinal cord damage is apparent, Do Not Move the Victim. Stabilize them until authorities arrive. Try to stop all bleeding by applying pressure. (Take personal safety precautions, i.e., gloves and CPR mask).

**Fire**

In case of fire, call authorities immediately and evacuate the area. Fire fighting efforts may begin with the first responders. All Kitt Construction & Development, LLC employees are instructed to maintain a safe distance from the fire. A fire extinguisher will be located in the shop, office, or common areas of each Jobsite.

**Violence**

In the event of violence in the workplace, the police should be called immediately. It is imperative that our employees try to avoid confrontational situations and avoid acting as a mediator in any situation of violence, you are instructed to contact your supervisor for help and contact the authorities.

**Fatalities**

In the event of an occupational fatality or one or more workers is hospitalized, Washington State Department of Labor & Industries must be contacted within 8 hours. The Department of Labor and Industries will conduct an investigation. Our main office should be contacted immediately following the contact of authorities.

# CRISIS MANAGEMENT PLAN

**SAFETY AND LOSS CONTROL POLICY**

**1. PURPOSE**

The purpose of this plan is to prepare every employee if Kitt Construction & Development, LLC unfortunately experiences a crisis in the future. The plan is a management tool for jobsite staff and the main office staff.

**2. CRISIS MANAGEMENT TEAM ASSIGNMENTS**

In-order to manage a crisis, there will be A Crisis Management Team created to help facilitate communications in a positive manner with the media. The team is comprised of senior management with the specific duties detailed in the program. Employees should immediately notify the team if a potential crisis to Kitt Construction & Development, LLC has been identified.

**AREA TEAM LEADER:** Casey Kitt, Owner

**BACKUP:** Christi Kitt, Owner

Responsibilities: Assigns team members (with backups) and their responsibilities. Center point for all communications. Advises and coordinates moves with upper management. Fills in for team members when needed.

**SPOKESPERSON:** Casey Kitt, Owner

Responsibilities: Responsible for all communications from the corporation to the general public (through the media).

**SAFETY COORDINATOR:** Casey Kitt, Owner

Responsibilities: Assist and support the superintendent in any way. Document the incident in both writing and film: pictures and video. Notify DOSH and OSHA, if necessary.

**LEGAL COUNSEL:** Patrick Shirey at Lyons Law Offices

Responsibilities: Reviews crisis management plans and makes additions, corrections, etc. Is consulted as necessary during a crisis situation.

**GOVERNMENT LIAISON:** Casey Kitt, Owner

Responsibilities: A team member should be assigned to become familiar with the various utilities and governmental agencies such as police, water sanitation, power and city engineering.

**PUBLIC RELATIONS:** Christi Kitt, Owner

Responsibilities: Advises Team Leader and Spokesperson as necessary on press releases and statements.

**3. Crisis Definition**

There are many types of crisis, which could Kitt Construction & Development, LLC including the list of the following:

**Natural Disasters**
- Earthquake
- Flood
- Tornado/ Hurricane

**Jobsite Operations**
- Bomb Threats
- Computer System Failure
- Crane Damage
- Damage to Utility Lines
- Explosion
- Fire
- Industrial Accident
- Labor Strike or Work Stoppage
- Long-term Structural Problems
- Loss of key Supplier
- Power Outage
- Sabotage
- Structural Collapse
- Transportation Accident

**Environmental Accidents**
- Community Protests
- Groundwater Contamination
- Release of Toxic Chemical
- Transportation Accident

**Environmental Liabilities**
- Noise
- Community Protests
- Hazardous Waste Site
- Long-term Exposure to Toxic Chemicals

**Employee Safety and Health**
- Chronic Safety Problem
- Personal Injury Suit
- Exposure to Carcinogens
- On-the-Job Accident
- On-the-Job Fatality

**Customer Relations**
- Contractual Disputes with Client
- Damage to Utility Lines
- Litigation

**Labor Relations**
- Minority Employment
- Negotiations
- Organizing Drive
- Unfair Labor Practices
- Violent Strike
- Work Stoppage

**Management Issues**
- Bankruptcy
- Downsizing/Layoffs
- Lack of Bonding Capability
- Loss of Critical Computer Data
- Management Succession
- Owner or Key Employee Dies
- Owner Won't Retire
- Rapid Growth
- Reorganization
- Serious Cash Flow Problems
- Sudden Market Shifts

**Investor Financial Relations**
- Acquisition
- Merger

**Employee/Management Misconduct**
- Bribery
- Kickbacks
- Murder
- Price Fixing
- Scandal
- Sex Discrimination
- Slander
- Suicide
- Theft/Embezzlement

**Government Affairs**
- Legislation that could impact business

**JOBSITE CRISIS CHECKLIST**
**SUPERINTENDENT**

In the event of a crisis, the **Project Superintendent or the most senior manager** present at the time should perform these tasks in the order they appear below.

**1. Determine Quickly and Accurately the following:**

- What Happened?
- Where did it happen?
- When did it Happen (day, date, time)?
- Current situation as verified by facts.
- Number and Names of fatalities/injuries.
- Effect on local workforce.

**2.** If this is a bomb threat, gas leak, or other crisis which threatens Kitt Construction & Development, LLC or the client's workforce; give the order for an orderly evacuation.

**Note:** The superintendent will need to contact employees by various means immediately upon being notified of crisis.

**3. If an injury is involved, call the appropriate emergency response agency (ies).**

- Fire Department 911
- Police Department 911
- Ambulance Services/ Paramedics 911
- Hospitals. Yakima Regional 509-575-5000 or Memorial 509-575-8000
- Poison Control Center Check Local listing for 1-800-222-1222.

**4. Call the team leader or his backup**

- Team Leader Casey Kitt, Owner
- Backup Christi Kitt, Owner

**5. Assign Jobsite Crisis Positions**

Note: See Crisis management team assignments on page 1. If the Team Leader and/or backup are unavailable for any length of time, make the assignments on page 1.

**6. Deal with the media until the Team Leader arrives**

***Do Not*** call the media yourself. ***Do*** deal with any calls that come in. Record all contacts with the media on the Press Information Log Sheet.

Note: Reread the Spokesperson's section beginning on page # of this policy if time permits.

**Crisis Checklist**

***Team Leader***

In the event of a crisis the Team Leader for the respective area should perform these tasks in the order they appear below.

**1.** Get the who, what, when, where, and how from the Project Superintendent as soon as the call comes in.

**2.** Quickly determine the following:

- Should the jobsite be shut down and closed?
- Is the team leader needed at the site?
- Who will be the temporary spokesperson for the company?

**3.** If there is a Serious Injury or Fatality, follow the guidelines in the "Notification of the Victims "Family" section of this policy.

**4.** Assign the following:

- All media calls, both at the jobsite and at the Main Office, are to be directed to a specific representative at the location for screening. She/he will then forward to the spokesperson. This designee and the Team Leader will record each conversation using the press information log sheet. Media advisors are to be issued as often as necessary with updated information.

- Someone to provide the team leader with daily updated status information. This information will be used for updating: (1) employers, (2) media, (3) all other audiences/influencers. Each team member will provide the team leader with a daily status report on their respective responsibility assignments.

- Someone to contact employees to advise of status to assure that everyone speaks with one voice.

- Secure a photographer to document any necessary visual information.

- Find the latest safety record information for the project and the company.

Beyond this, outlining specific steps for the Team Leader to follow is nearly impossible. The nature of the crisis will determine what needs to be done, and the team leader will need to think on his/her feet and take things as they happen. However, at some pint during the crisis, these decisions will need to be made.

**5.** Check the project information sheet for Owner, Subcontractors, and Suppliers contact personnel. Give directions to the jobsite.

**6.** Refer to the jobsite's project information sheet. Alert the offices, people, or agencies listed as appropriate.

**Crisis Checklist**
***Team Spokesperson***

In the event of a crisis the Team Spokesperson for the respective area should perform these tasks in the order they appear below.

**1.** Get your main facts from the Project Superintendent and the Team Leader.

**2.** Your first announcement with the media should not cover no more than the following:

- What happened?
- Where did it happen?
- When did it happen (day, date, time)?
- Current situation as verified by facts.
- Number of fatalities/ injuries. Do not release names until next of kin are notified. Once next of kin have been notified you may release name, sex, job title, and age. Refer further questions to the appropriate hospital or funeral home.
- Effect on the local workforce.
- Status of investigation. Who is investigating?

**You must be constantly updating this list of facts as new information is received.**

**2.** Ascertain what media contact there has been, if any.

**3.** Process and record all media contacts.

All media calls are to be directed to a specific person assigned by the Team Leader for screening. He/ She will then forward it on to you. This designee and the Team Spokesperson will record each conversation using the Press Information Log sheet. Updated press releases and statements are to be issued as often as necessary with any appropriate new information.

**4.** Re-familiarize yourself with the sections, which follow as soon as the crisis permits.

***Do's - When Dealing With the Media***

**PURPOSE:**
Everything you say to the media is quotable and you are liable!

**<u>DO'S</u>**

- **Do** talk. Saying little is better than saying nothing. Explaining why you can't talk is better than stonewalling. If you want your side of the story told, you must tell it. If you don't, reporters will get a version elsewhere, such as from the disgruntled employee that was laid off last week, or a worker who has just witnessed his best friend getting hurt or killed.

- **Do** tell the truth. Reporters will find it out anyway so be honest accurate when giving information. This doesn't mean you have to give every detail, but be truthful.

- **Do** respond quickly. If you hesitate, the wrong story may be told and that is tough to erase.

- **Do** emphasize the positive and always communicate your corporate message. Remember to emphasize the good safety measures taken, the minimal damage because of good teamwork of your employees, and what the company is doing to minimize the effect of the emergency on the community.

- **Do** take control. If there is bad news, release it yourself before a reporter digs it up and tells the world.

- **Do** make sure your information is accurate. It should come from a reliable source and you should understand the details thoroughly.

- **Do** make sure the reporters know whom the spokesperson is. The corporate spokesperson should be the only one authorized to disseminate information to the public. It is very important that you "speak with one voice". Keep in mind that no information should be released without being approved by upper management.

- **Do** follow up a verbal statement to the press with a written one and distribute to your media list, if time and the situation permits. This helps to assure fairness and consistency in your statements.

***Don'ts - When Dealing With the Media***

**PURPOSE:**
Everything you say to the media is quotable and you are liable!

**DON'TS**

- **Don't** tell anything "off the record". If you don't want it used, don't say it.

- **Don't** say "No Comment". This statement implies guilt. If you don't know an answer to a question, tell the reporter you don't know, but will try to find out. If the question may lead to an embarrassing answer, give as much information as you can in as positive a light as possible. If you make a mistake, admit it. Avoid excuses. Explain how you are planning to make things right.

- **Don't** get into liability issues. Do not talk about who is responsible, do not make any accusations, and do not give out company or individual names. Whatever you say may become part of a legal issue, so be as general as possible.

- **Don't** be trapped into predicting the future. If the situation is complex and will take days to determine the full extent of the damage, tell reporters that the company will resume full work on the project as soon as possible.

- **Don't** fall for the "stall" technique, in which the reporter leaves the microphone in your face after you have answered, hoping for you to say more. This is an uncomfortable moment, even for pros, but if you are silent, you won't slip.

- **Don't** let a reporter reinterpret what you've said in a subsequent question. Correct the question before you attempt an answer.

- **Don't** wear sunglasses when being interviewed. You will be perceived as being "shifty" and hiding something.

**STATEMENTS TO BUY TIME**

- We are aware of the situation and are investigating the details. We will keep you informed as the situation progresses.

- The cause is not known at this time. The investigation is continuing.

- Due to the rush of the emergency, information is not yet complete.

- Our management team cannot be reached because they are handling the emergency. We will notify you as soon as details are known.

- We have no information as to the extent of the emergency at this time, but we will contact you as soon as details are known.

**QUESTIONS THAT WILL BE ASKED**

- Number of deaths. If the media sees a body being removed, say "only one body has been recovered", not "I don't know how many are dead".

- Number of injuries.

- Damage. Don't speculate. Only brief in general terms as soon as confirmed.

- What burned, collapsed, etc.

- Time/ Location

- Following notification of relatives - the names of dead and/ or injured, their job title, age and sex, length of time with the company.

- Description of the structure.

- How many people do you employ, totally and on this project.

- Has this happened to you before?

**SENSITIVE INFORMATION**
**MEDIA WILL BE LOOKING FOR!**

**Note: Be extremely careful with these issues!**

1. Construction delays. If the information is available, go ahead and release it but accentuate the positive.

2. Cause. Let the City Officials release this.

3. Try to avoid specific damage estimates as well as what was destroyed.

4. Project shutdown. Fully assess the damage before making a statement regarding this. Once the course is determined, give it to the media.

5. If a safety rule was violated by the victim, think twice before giving it out. He has already paid the penalty through injury and pointing up negligence may not help anyone.

6. Be Very Careful if asked to recite events as they transpired.

**GENERAL RULES**
**FOR MAKING STATEMENTS**

**1. ALWAYS KNOW YOUR MOST IMPORTANT POINT AND LEAD WITH IT!**

"Prior to today's mishap we have not had a fatality in the last 15 years. Our safety record is....!"

"No one is in danger - there is no threat of danger. Our employees brought the situation under control very quickly."

**2. IF YOU DON'T HAVE INFORMATION:**

"I don't have that information - let me get back to you in 15 minutes."

"That's the first I've heard of that - I'd like to check that before responding."

"Let me put that into perspective..."

**3. ALTERNATIVES FOR "NO COMMENT"**

"I am not the best source for information on that. The person you need to talk to is.....! OR the most current information is available from .....!"

*Warn aggressive reporters that they have no right to characterize your response as "no comment" when that is not the case. If he/she pushes, state: "The information is available and ready for distribution, you will receive it" or " the information will be given to all media when the facts and data have been properly checked." We are unable to make it available to a single media outlet at this time," or "The matter is in litigation and it is not appropriate for me to respond to questions."

**If you simply can't comment**

* Without making the situation worse, or
* Your comments will fuel the situation when it's about to die, or
* There is no positive public or corporate purpose served.

Then and only then - "no comment" is the best action. But take the sting out of it and say, "I'm sorry, it's just not appropriate for me to comment.

# CRISIS MANAGEMENT CHECKLIST
# FIRST RESPONSE

- ☐ Contact Emergency Services Call 911
- ☐ Contact Casey Kitt (509) 823-0881
- ☐ Contact Site Foreman and/or Project Manager
- ☐ Refer all media to the Office (509)834-7888
- ☐ Do Not Move Anything That Could be Evidence

# CRISIS MANAGEMENT CHECKLIST

## *SPOKESPERSON: CASEY KITT*

- ☐ Write for all statements and press releases.
- ☐ Designate someone to screen your calls from the new media.
- ☐ Complete the media log sheets.
- ☐ Anticipate media questions.
- ☐ Assemble the necessary background information and literature.
- ☐ Instruct reporters of a time and place for future updates.
- ☐ Follow up on additional media inquires.

## *OPERATIONS MANAGER: Highest level of Management Available*

- ☐ If the injury/fatality is a subcontractor's employee, it is the subcontractor's responsibility to notify the spouse/family.
- ☐ If a non-employee is hurt/killed, allow the authorities to make the notification then contact your insurance broker/company.
- ☐ Inform any surrounding businesses/residents that may be affected by the accident.
- ☐ Instruct employees to call and let their families know they are OK.

# CRISIS MANAGEMENT CHECKLIST

## *HUMAN RESOURCE MANAGER: CHRISTI KITT*

- ☐ Gather the names of the injured and/or deceased.
- ☐ Obtain the phone number(s) of the spouse(s)/family (ies)**.**
- ☐ Contact team leader to determine who should notify the spouse(s)/family(ies)**.**
- ☐ Debrief workers who witnessed the accident**.**
- ☐ If necessary, initiate a post-accident drug/alcohol test. (check w/ counsel)
- ☐ If appropriate, notify the applicable governmental agency.
- ☐ Determine if a third-party investigation team is needed.
- ☐ Designate someone to stay with the injured worker(s) at the hospital until family members arrive.
- ☐ Document the incident in writing and on film.
- ☐ Notify insurance broker/company.

# CRISIS MANAGEMENT CHECKLIST

## *TEAM LEADER: SITE SUPERINTENDENT/PROJECT MANAGER*

- ☐ Determine what happened, when & where , who was involved.
- ☐ Determine who is investigating the emergency.
- ☐ Verify the current status of the jobsite- should it be shutdown?
- ☐ Decide if the Company Spokesperson is needed on the jobsite.
- ☐ Advise Office of how to route calls.
- ☐ Setup a “war room” if needed. Area should handle 20 people with fax, phone, marker board, tape, computer, and food.
- ☐ Identify potential spin-off crisis.
- ☐ Fax/email/voicemail all employees at the jobsites to notify them of the incident and advise them who will handle media & general information calls.

# CRISIS MANAGEMENT CHECKLIST

## *SITE LEADER: SITE SUPERINTENDENT/PROJECT MANAGER*

- ☐ Verify Emergency Services has been called.
- ☐ Contact Human Resources Christi Kitt.
- ☐ Determine if the site should be shutdown.
- ☐ Make sure all employees are accounted for.
- ☐ **Do not move anything that could be classified as Evidence!**
- ☐ Ensure telephone coverage at site.
- ☐ Tell jobsite personnel where to direct information requests.
- ☐ Post workers to restrict entry to the site until it is deemed safe/secure.
- ☐ Select a temporary spokesperson with assistance from Casey Kitt and deliver buy-time statement to media if necessary.
- ☐ **Examples of Buy-Time Statements:**
    - ○ "We are aware of the situation and are investigating the details. We will keep you informed as the situation progresses."
    - ○ "The cause is not known at this time, however the investigation is continuing."
    - ○ "Due to the rush of the emergency, information is not yet complete. We will keep you informed as the situation progresses."
    - ○ "Our management team is currently dealing with the emergency. We will contact you as soon as more details are known."

# CRISIS MANAGEMENT CHECKLIST

Press Information Log Sheet

Publication or Station: _____

Reporter's Name: _____

Phone Number: _____

Date/Time Call was received: _____

Deadline: _____

Date/Time Call was returned: _____

Facts given (summary): _____
_____
_____
_____
_____
_____

Publication or Station: _____
Reporter's Name: _____

Phone Number: _____

Date/Time Call was received: _____
Deadline: _____

Date/Time Call was returned: _____

Facts given (summary): _____
_____
_____
_____
_____

# EMPLOYEE SAFETY CONCERNS PROCEDURE

It is Kitt Construction & Development, LLC's intent to have all employees involved in safety. It is requested and Kitt Construction & Development, LLC supports and encourages employees to report all incidents or situations which they believe or perceive could cause injury or illness.

Concerns may be reported in any of the following ways:

- Speak to job superintendent
- Weekly safety toolbox meeting
- Completing a Near-Miss Report
- Safety representative  Casey Kitt

All concerns will be documented, and the superintendent is responsible to report back to the employee any resolution of the concern.

# FALL PROTECTION SAFETY RULES

**Purpose**

To minimize the risk of fall injuries caused by falls by providing safe work practices for employees who at any height depending on the jobsite hazards. This policy applies to all personnel: hourly, salary, contractor, subcontractor or any other personnel.

Fall protection at “0” feet - Open sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment, such as dip tanks and material handling equipment, and similar hazards shall be guarded with a standard guardrail system or other acceptable fall protection systems per WAC 296-880-10010 (1).

Fall protection at “4” feet - Every open sided walking/working surface or platform four feet or more above adjacent floor or ground level shall be guarded by a standard guardrail system, or equivalent, as specified in WAC 296-880-20005. Guarding is not required where there is entrance to a ramp, stairway, or fixed ladder.

Fall protection at “6” feet – Kitt Construction will ensure that the appropriate fall protection system is provided, installed, and implemented according to the requirements in WAC 296-880-30005 when employees working on roofing work on low pit roofs or construction leading edges are exposed to fall hazards of six feet or more to the ground or lower level.

Fall protection at “10” feet – Kitt Construction will ensure that the appropriate fall protection system is provided, installed, and implemented according to the requirements in WAC 296-880-30005 when employees are exposed to fall hazards of ten feet or more to the ground or lower level.

**Policy**

It is the responsibility of every individual who performs work on any elevated surface or near holes into which they may trip, step into or step through be familiar with and comply with this

**Fall Protection Plan Objectives**

1. Develop and implement a program of protection where employees are assigned to work in environments in which potential falling hazards exist.
2. Identify fall hazards in the workplace.
3. Describe the details for assembly, maintenance and inspection of fall arrest/restraint equipment utilized by Kitt Construction on all Kitt Construction projects.
4. Describe methods for providing overhead protection for employees working under construction activities.
5. Describe the procedures to be put into effect in the event of an injury, detailing how emergency personnel would evacuate an injured employee in the event of a fall.
6. Provide a system for inspection of all fall protection equipment.
7. Provide a monitoring system throughout Kitt Construction projects to assure compliance with WAC 296-880-40045.

**Definitions**

Anchorage. A secure point of attachment for lifelines, lanyards, or deceleration devices which is capable of withstanding the forces specified in this chapter.

Catenary line/ Horizontal lifeline. A rail, rope, wire, or synthetic cable that is installed in a horizontal plane between two anchorages and used for attachment of a worker's lanyard or lifeline device while moving horizontally; used to control dangerous pendulum like swing falls.

Competent person. An individual knowledgeable of fall protection equipment, including the manufacturer's recommendations and instructions for the proper use, inspection, and maintenance; and who is capable of identifying existing and potential fall hazards; and who has the authority to take prompt corrective action to eliminate those hazards; and who is knowledgeable of the requirements contained in this chapter regarding the installation, use, inspection, and maintenance of fall protection equipment and systems.

Fall arrest system. A fall protection system that will arrest a fall from elevation. Fall arrest systems include personal fall arrest systems that are worn by the user, catch platforms, and safety nets.

Fall restraint system. A system in which all necessary components function together to restrain/prevent an employee from falling to a lower level. Types of fall restraint systems include standard guardrail systems, personal fall restraint systems, warning line systems, or a warning line system and safety monitor.

Full body harness. A configuration of connected straps that meets the requirements specified in ANSI Z359.1, which may be adjustable to distribute a fall arresting force over at least the thighs, shoulders and pelvis, with provisions for attaching a lanyard, lifeline, or deceleration devices.

Hardware. Snap hooks, D-rings, bucklers, carabiners, adjusters, or O-rings, which are used to attach the components of a fall protection system together.

Infrequent. The task or job is performed only on occasion, when needed (e.g., equipment breakdown), on an occasional basis, or at sporadic or irregular intervals

Lanyard. A flexible line of webbing, rope, or cable used to secure a positioning harness or full body harness to a lifeline, or an anchorage point usually two, four, or six feet long.

Lifeline. A vertical line from a fixed anchorage or between two horizontal anchorages, independent of walking or working surfaces, to which a lanyard or device is secured. Lifeline as referred to in this text is one which is part of a fall protection system used as back-up safety for an elevated worker or as a restraint for workers on a flat or sloped surface.

Restraint line. A line from a fixed anchorage or between two anchorages to which an employee is secured in such a way as to prevent the worker from falling to a lower level.

Safety watch system. A type of fall protection system in which a competent person is responsible for recognizing and warning one employee of fall hazards.

Temporary. The duration of the task the worker performs is brief or short.

Unprotected sides and edges means any open side or edge of a floor, roof, balcony/deck, platform, ramp, runway, or walking/working surface where there is no standard guardrail system, or parapet wall of solid strength and construction that is at least thirty-nine inches in vertical height.

Walking/working surface means Any surface, whether horizontal or vertical on which an employee walks, works, or gains access to a work area or workplace location. Walking/working surfaces include, but are not limited to, floors, the ground, roofs, ramps, bridges, runways, stairs, dock boards, formwork, and reinforcing steel but not including ladders.

General

1. A workplace fall is an accidental loss of balance that permits an uncontrolled drop from one level to another, whereas a slip generally involves a fall on the same level. In some cases, a slip can led to a serious fall.
2. Fall protection means no exposure to a fall hazard without protection. Protection may consist of:

A. Removing the hazard;
B. Fall restraint; or
C. Fall arrest.

3. Appropriate fall protection, including prompt rescue measures must be available to employees working at any elevation where the real potential for injury exists, typically anything over four feet, but may be less if special conditions exist. As required by State & Federal rule, when personal fall arrest systems are used, the employer must assure that employees can be promptly rescued or can rescue themselves should a fall occur. The availability of rescue personnel, ladders or other rescue equipment should be evaluated. In some situations, equipment that allows employees to rescue themselves after a fall has been arrested may be desirable.

Fall Protection Plan

Anytime an employee may be assigned to work where a fall hazard(s) of more than TEN (10) feet exists, the supervisor must have completed a Fall Protection Plan form for the hazard(s). The plan must be on file at the job site and the employee(s) working in the fall hazard area must be made aware of the plan. (a sample of that plan is attached to this document). The plan shall address the following items:

1. Identification of the fall hazard.
2. Description of the method(s) of all protection to be used.
3. Description of the procedures for the assembly, maintenance, inspection and disassembly of the fall protection system to be used.
4. Description of the procedures for the handling, storage and securing of tools and materials.
5. Description of the method of providing overhead protection for workers who may be in or pass through the area below the work site.
6. Description of the method(s) for the prompt safe removal of injured workers.

7. Describe where the plan will be posted. A file to be maintained with all Fall Protection Plans and will be available for inspection.
    A. Once the plan is completed, the Fall Protection Plan shall be discussed by all parties at the jobsite and initialed prior to starting work.
    B. All employees at the jobsite must read and understand all items on the Fall Protection Plan before initialing. It shall be the responsibility of the supervisor to ensure that all parties fully understand the worksheet.
    C. Any person working at a jobsite without initialing the plan will be subject to disciplinary action.

**Identification of Fall Hazards**

1. Fall hazards include, but are not limited to platforms, walkways, roofs, man baskets, scissor lifts, crane baskets, scaffolds, and tank tops.

**Methods of Fall Protection**

1. Standard guardrail system, or equivalent, as specified in WAC 296-880-40005.
2. When guardrail is not available, a system of fall restrain/ fall arrest shall be used. These systems may include harnesses, lifelines, lanyards and deceleration devices.
3. As a last resort of all arrests, safety nets, and / or catch platforms may be used.
4. Safety Monitor system. When fall protection systems, including personal fall arrest systems, warning line systems, controlled access zones or guardrail system cannot be implemented, employers are allowed to use a safety Monitor system in accordance with WAC 296-880-40050.They must be wearing a high visibility vest or clothing to distinguish them as the safety monitor.
    A. When using a safety monitor system, make sure to address them in the Fall Protection Worksheet and include the following:
        i. Name;
        ii. Level of training; and
        iii. Be sure they are familiar with Safety Monitor AND Warning Line Systems.
        iv. Safety monitor shall perform no work while acting as safety monitor.
5. Safety watch system. When work, other than construction work, is performed that is both infrequent and temporary, and not within six feet of the roof edge.

EXCEPTION: When work, other than construction work, is performed fifteen feet or more from the roof edge, the employer is not required to provide any fall protection, provided the work is both infrequent and temporary and the employer implements and enforces a work rule prohibiting employees from going within fifteen feet of the roof edge without using fall protection in accordance with WAC 296-880-20005 (7)(a) through (f).

6. Scaffolding shall be erected in accordance with the scaffold standard located in WAC.
7. When questions arise, do not hesitate to contact your supervisor or Safety Director to discuss your options**. <u>If you are not sure, don't do it!</u>**

**Equipment**

1. All fall protection equipment shall comply with local, state, and federal requirements.
2. All fall protection equipment shall be inspected at the start of each shift by a competent person.
3. All fall protection equipment shall be utilized in a manner consistent with manufacturer's instructions and shall not be modified.

Training

1. All training required by WAC 296-880 shall be conducted at least every two years and documented.
2. Documentation shall be kept on file.
3. When the employer has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by subsection (1) of this section, the employer shall retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:

    A. Changes in the workplace render previous training obsolete; or

    B. Changes in the types of fall protection systems or equipment to be used render previous training

    C. obsolete; or

    D. Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment

    E. indicate that the employee has not retained the requisite understanding or skill.

## Unified Fall Protection Quick Reference Guide Effective November 1, 2022

| General fall protection for all industries | Threshold height | WAC |
|---|---|---|
| Above or adjacent to dangerous equipment | Regardless of height | 296-880-10010(1) |
| Holes into which an employee can trip, step into, or step through | Regardless of height | 296-880-10010(2) |
| Falling into or onto impalement hazards | Regardless of height | 296-880-10010(3) |
| When on a walking/working surface | Four feet or more | 296-880-20005 |
| Ramps, runways, and inclined walkways | Four feet or more | 296-880-20005(2) |
| Holes where work is being performed | Four feet or more | 296-880-20005(3) |
| Skylights | Four feet or more | 296-880-20005 (3)(b) |
| Hatchway and chute holes | Four feet or more | 296-880-20005 (3)(c) |
| Ladderways | Four feet or more | 296-880-20005 (3)(d) |
| Pits and trap door holes | Four feet or more | 296-880-20005 (3)(e) |
| Repair pits and service pits | Four feet or more | 296-880-20005 (3)(f) |
| Manholes | Four feet or more | 296-880-20005 (3)(g) |
| Openings | Four feet or more | 296-880-20005(4) |
| Formwork and reinforcing work | Four feet or more | 296-880-20005(5) |
| Steep pitch roof - Regardless of task | Four feet or more | 296-880-20005(6) |
| Low pitch roof - Other than roofing work or constructing a leading edge | Four feet or more | 296-880-20005(7) |
| Hazardous slopes | Four feet or more | 296-880-20005(9) |
| **Specific requirements not addressed in WAC 296-880-200** Construction Work Chapter 296-155 WAC | | |
| Roofing work on a low pitch roof | ~~Ten~~ six feet | 296-880-30005(1) |
| Constructing a leading edge | ~~Ten~~ six feet | 296-880-30005(1) |
| Engaged in the erection or placement of structural members | Ten feet | 296-880-30005(1) |
| Engaged in excavation and trenching operations | Ten feet | 296-880-30005(1) |
| **Elevating work platforms** chapter 296- 869 WAC | | |
| Vehicle mounted aerial devices | Regardless of height | 296-880-30015 (1) |
| Manually propelled and self-propelled elevating work platforms | Regardless of height | 296-880-30015 (2) |
| Boom supported elevating work platforms | Regardless of height if required by manufacturer | 296-880-30015 (3) |
| **Powered Platforms** chapter 296- 870 WAC | | |
| Working on a roof or other elevated working area | Four feet or more | 296-880-30020 (5) |
| **Scaffolds** chapter 296- 870 WAC | | |
| Working on a scaffold | Ten feet of more | 22996-880-30030 (1) |

# Fall Protection Work Plan

## INSTRUCTIONS

You must develop and implement a written fall protection work plan including each area of the workplace where the employees are assigned and where fall hazards of 10 feet or more exist and be available on the job site for inspection by the department. **Refer to WAC 296-880 as well as the AGC of Washington Fall Protection Basics Summary.**

FILL OUT THE SPECIFIC JOB INFORMATION.

Company Name: _____

Job Name: _____ Date: _____

Job Address: _____ City: _____

Job Foreman: _____ Jobsite Phone: _____

(if additional space is needed, use the back of the sheet)

Identify all fall hazards 10 feet or more above the ground level or lower level. Check all that apply.

- ☐ Open-sided floors
- ☐ Decks/Balconies
- ☐ Floor openings
- ☐ Skylight openings
- ☐ Wall openings
- ☐ Window openings
- ☐ Door openings
- ☐ Roof openings
- ☐ Leading edge work
- ☐ Mobile lift work

Methods of fall protection to be used: (LSO = Low Slopes Only. Low Slopes = 4 x 12 or less)

- ☐ Guardrail system (LSO)
- ☐ Warning line System (LSO)
- ☐ Catch platform
- ☐ Safety net
- ☐ Covers
- ☐ Personal fall arrest system
- ☐ Personal fall restraint system
- ☐ Positioning device system
- ☐ Horizontal lifelines
- ☐ Vertical lifelines & rope grab
- ☐ Safety watch system (LSO)
- ☐ Warning line w/ safety monitor (LSO)

Name of safety watch or monitor (if used): _____

Overhead and Impalement Hazard Protection Methods

- ☐ Hard Hats
- ☐ Overhead Hazard Signs
- ☐ Debris Nets
- ☐ Other: _____
- ☐ Toe boards on Guardrails
- ☐ Screens on Guardrails
- ☐ Barricade to control Access to Area
- ☐ Rebar caps/ covers _____

Describe procedures for assembly, maintenance, inspection, disassembly of fall protection system to be used.

Describe procedures for handling, storage, and securing tools, equipment, and materials.

Describe methods of overhead protection for workers who may be in or pass through work area.

Describe methods to be implemented for prompt, safe removal of injured worker(s).

Employees who received fall protection training on the above site-specific fall protection work plan.

| Name(s): | Date: |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |

The competent person's signature verifies that the fall protection work plan has been done, the employees informed of the plan and that employees have received training in the fall protection systems in use:

| Name | Title | Date |
|---|---|---|
| | | |

# FIRE PREVENTION POLICY

## GENERAL REQUIREMENTS

The project safety supervisor shall be responsible for developing and implementing a fire protection and prevention program for the project.

**Key Elements of Fire Prevention:**

1. Remove all combustibles and cover with fire resistant fabric when welding or burning near combustible materials. When in doubt, consult your supervisor.
2. Remove all flammable materials from the project when no longer required.
3. Every effort shall be made to contain any source of ignition such as welding slag, torches, or other items of this nature. Do not attempt any work involving a source of ignition near a pit, sewer, drain, manhole, trench, or enclosed space where flammable gases may be present.
4. Only approved solvents should be used for cleaning and de-greasing. The use of gasoline and similar flammable products for this purpose is prohibited.
5. Flammable and combustible liquids must be handled only in approved, properly labeled safety cans.
6. Place oily rags in approved, covered metal containers.
7. Do not weld or cut on a tank or in an enclosure that has contained gasoline or other flammable or combustible material until it has been purged and tested safe.
8. The use of open fires is prohibited unless specifically authorized by the responsible supervisor.

All appropriate first aid and fire equipment shall be properly placed and readily accessible. Project management shall verify that adequate numbers of personnel are qualified to operate the fire fighting equipment.

Instructions for reporting fires will be posted on each bulletin board. In the event of a fire, assure the safety of all personnel, and then use the appropriate fire-fighting equipment until help arrives.

## CLASSIFICATIONS OF FIRE:

**Class A -** Ordinary combustible materials, such as wood, coal, paper or fabrics, where wetting and cooling is the method of extinguishments.

**Class B -** Flammable petroleum products to other flammable liquids where oxygen must be excluded from extinguishments.

**Class C -** Fires in or near energized electrical equipment where, because use of water would be hazardous, a “non-conducting” extinguishing agent must be used.

## FIRE PROTECTION AND PROPERTY CONSERVATION

Fire protection requirements shall be followed throughout all phases of construction and demolition work. There shall be fire-fighting equipment provided as specified in this section. As fire hazards

occur, there shall be no delay in providing necessary protection. The following conditions need to exist throughout the duration of the project.

1. Access to all available firefighting equipment. (Fire Extinguishers)
2. Firefighting equipment will be provided by the project.
3. All firefighting equipment shall be inspected by a competent person and properly maintained.
4. A log of each inspection shall be kept on the project.
5. All equipment shall be maintained in operable condition.
6. Defective equipment shall be immediately replaced.
7. Isolated or potential high risk projects shall assign, train and equip a fire fighting group (fire brigade) to assure adequate protection to life and property.

**PORTABLE FIRE FIGHTING EQUIPMENT**

1. A fire extinguisher, rated not less that 20lbs. ABC, should be provided for each 3,000 square feet of combustible building area. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed a horizontal distance of 100ft.
2. One or more fire extinguishers, rated not less than 20lbs. ABC, shall be provided on each floor in multi-story buildings, at least one fire extinguisher shall be located adjacent to a stairway.
3. A fire extinguisher, rated not less than 10lbs., shall be provided within 50 feet of:
    a. 5 gallons or more of flammable or combustible liquids
    b. 5 pounds or more of flammable gas (i.e. propane, etc). This requirement does not apply to the integral fuel tank of motor vehicles.
4. Carbon tetrachloride and other toxic vaporizing liquid fire extinguishers are prohibited.
5. Portable fire extinguisher shall be inspected monthly and properly maintained.
6. Only fire extinguishers which have been listed or approved by a nationally recognized testing laboratory shall be used to meet the requirements of this section.
7. All employees must be familiar with the location of all fire-fighting equipment in their work area.
8. Tampering with fire-fighting equipment is grounds for discharge.

**FIXED FIRE FIGHTING EQUIPMENT**

**Sprinkler Protection:**

If the facility being constructed includes the installation of an automatic sprinkler protection, the installation shall closely follow the construction. Sprinkler protection should be placed in service as soon as applicable laws permit following the completion of each story.

During demolition or alterations, existing automatic sprinkler installation shall be retained in service as long as reasonable.

**Standpipes:**

In all structures in which standpipes are required, they shall be bought as soon as applicable laws permit. They shall be maintained as construction progresses in such a manner that ensures they are always ready for fire protection uses.

The standpipes shall be provided with Siamese fire department connections on the outside of the structure. The Siamese connections shall be conspicuously located at street level. There shall be at least one standard hose outlet on each floor. It is required that we provide fire hose. The determination of the diameter and length o hose will be mandated by the local fire municipality.

**Fire Hydrants:**

Fire hydrants shall be located on the project work site and adjacent area. All fire hydrants on the work site shall be accessible. There shall be no storage of materials or equipment within six feet in all directions from the fire hydrant.

# FIRST AID TRAINING, KITS, AND POSTERS

A. Purpose: To afford the employees immediate and effective attention should an injury result, foreman will ensure that a certified first aider(s) will be available.

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

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

b. Other persons will be trained in order to augment or surpass the standard requirements.

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

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

a. First aid kit locations at this jobsite include:

1. Jobsite Trailer, if present.

2. Site Supervisor's vehicle.

b. Site Supervisor is designated to ensure that the first aid kits are properly maintained and stocked. If first aid kits are missing items supervisor is to request missing items through the Office Manager (509) 834-7888.

3. Posters listing emergency numbers, procedures, etc., will be strategically located, such as on the first aid kit, at telephones, and in other areas where employees have easy access.

# FIRST AID PROCEDURES IN CONSTRUCTION

We have first aid qualified workers here but we do not have “designated” first-aiders. First aid at the job site is done on a Good Samaritan basis.

If first aid trained personnel are involved in a situation involving blood, they should:

1. Avoid skin contact with blood/other potentially infectious materials by letting the victim help as much as possible, and by using gloves provided in the first aid kit.

2. Remove clothing, etc. with blood on it after rendering help.

3. Wash thoroughly with soap and water to remove blood. A 10% chlorine bleach solution is good for disinfecting areas contaminated with blood (spills, etc.).

4. Report such first aid incidents within the shift to supervisors (time, date, flood presence, exposure, names of others helping).

Hepatitis B vaccinations will be provided as soon as possible but not later than 24 hours after the first aid incident.

If an exposure incident occurs, we will immediately make available as appropriate:

1. Post exposure evaluation

2. Follow-up treatment

3. Follow-up as listed in WAC 296-823, Occupational Exposure to Bloodborne Pathogens.

*Training covering the above information should be conducted at job site safety meetings.*

# FORKLIFT SAFETY

Material handling is a significant safety concern at Kitt Construction & Development, LLC. During the movement of products and materials, there are numerous opportunities for personal injury and property damage if proper procedures and caution are not used. This program applies to all powered industrial trucks, including forklifts, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines. The information in this program and applicable standards should be used to train prospective industrial truck operators and provide the basis for refresher and annual retraining.

The Safety Department is responsible for developing, implementing, and administering Milestone's forklift safety program. The Safety Manger will review the forklift safety program annually and make recommendations for revisions if necessary. The Safety Department must ensure that all employees who operate or work near forklifts are properly trained.

Superintendent/Supervisors must ensure that their employees follow safe operating procedures when using forklifts. Employees who operate forklifts must follow the safe operating procedures specified below.

**Applicable Standards**

OSHA's standard on powered industrial trucks is at 29 CFR §1910.178. The applicable voluntary consensus standard is ANSI B56.1, American National Standard for Powered Industrial Trucks. In addition to these standards, Superintendent/Supervisors and employees should follow the procedures described in the operator's manuals supplied by the manufacturers.

**Pre-Qualifications for Powered Industrial Truck Operators**

All candidates for powered industrial truck (PIT) operators must meet the following basic requirements prior to starting initial or annual training:

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

**Training**

Training for PIT operators must be conducted by an experienced trainer or operator, selected by the Safety Department. All operational training must be conducted under close supervision. All training and evaluation must be completed before an operator is permitted to use a PIT without continual and close supervision.

Trainees may operate a powered industrial truck only:

- under the direct supervision of persons, selected by the Safety Department, who have the knowledge, training, and experience to train operators and evaluate their competence; and
- where such operation does not endanger the trainee or other employees.
  Training consists of a combination of formal instruction, practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.

**Initial Training**

As specified in the OSHA standard, PIT operators must receive initial training in the following truck-related and workplace-related topics:

Truck-related topics:

- operating instructions, warnings, and precautions for the type of truck the operator will be authorized to operate;
- differences between the truck and automobiles;
- truck controls and instrumentation;
- engine or motor operation;
- steering and maneuvering;
- visibility (including restrictions due to loading);
- fork and attachment adaptation, operation, and use limitations;
- vehicle capacity;
- vehicle stability;
- vehicle inspection and maintenance that the operator will be required to perform;
- refueling and/or charging and recharging of batteries;
- operating limitations; and
- operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate.

Workplace-related topics:

- surface conditions where the vehicle will be operated;
- composition of loads to be carried and load stability;
- load manipulation, stacking, and unstacking;
- pedestrian traffic in areas where the vehicle will be operated;
- narrow aisles and other restricted places where the vehicle will be operated;
- hazardous (classified) locations where the vehicle will be operated;
- ramps and other sloped surfaces that would affect the vehicles' stability;
- closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust; and
- other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation.

*Refresher Training and Evaluation*

Refresher training, including an evaluation of the effectiveness of that training, must be conducted to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely.

Refresher training in relevant topics must be provided to the operator in the following situations:

- The operator has been observed operating the vehicle in an unsafe manner.
- The operator has been involved in an incident or near-miss incident.
- The operator has received an evaluation that reveals that the operator is not operating the truck safely.
- The operator is assigned to drive a different type of truck.
- A condition in the workplace changes in a manner that could affect safe operation of the truck.
- Once every three years, an evaluation will be conducted of each powered industrial truck operator's performance.

**Safe Operating Procedures**

- **<u>Only authorized and trained personnel will operate PITs.</u>**
- All PITs will be equipped with a headache rack, fire extinguisher, rotating beacon, back-up alarm, and seat belts. The operator will wear seatbelts at all times.
- The operator will perform daily pre- and post-trip inspections.
- Any safety defects (such as hydraulic fluid leaks; defective brakes, steering, lights, or horn; and/or missing fire extinguisher, lights, seat belt, or back-up alarm) will be reported for immediate repair or the PIT will be taken out of service.
- Operators will follow the proper recharging or refueling safety procedures.
- Loads will be tilted back and carried no more than six inches from the ground. Loads that restrict the operator's vision will be transported backwards.
- PITs operators will obey plant speed limits and slow down on wet floors and going around turns.
- Hard hats will be worn by PIT operators in high lift areas.
- Operator will sound the horn and use extreme caution when meeting pedestrians, making turns, and cornering.
- Passengers may not ride on any portion of a PIT. Only the operator will ride PITs. “NO PASSENGERS” decals will be affixed on all PITs.
- If PITs are used as a man lift, an appropriate man lift platform (cage with standard rails and toe-boards) will be used.
- Aisles will be maintained free from obstructions, marked, and wide enough (six-foot minimum) for vehicle operation.
- Lift capacity will be marked on all PITs. Operators will assure the load does not exceed rated weight limits.
- When unattended, PITs will be turned off, forks lowered to the ground, and the parking brake applied.
- All PITs (with the exception of pallet jacks) will be equipped with a multi-purpose dry chemical fire extinguisher (minimum rating; 2A:10B:C).
- Operators must report all incidents, regardless of fault and severity, to the Safety Department. The Safety Department will conduct an incident investigation.
- When loading rail cars and trailers, dock plates will be used. Operators will assure dock plates are in good condition and will store them on edge when not in use.
- Rail cars and trailers will be parked squarely to the loading area and have wheels chocked in place. Operators will follow established docking/undocking procedures.

**Changing and Charging Storage Batteries**

- Battery charging installations must be located in areas designated for that purpose.
- Facilities must be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.
- A conveyor, overhead hoist, or equivalent material handling equipment must be provided for handling batteries.
- Reinstalled batteries must be properly positioned and secured in the truck.
- A carbon filter or siphon must be provided for handling electrolyte.
- When charging batteries, acid must be poured into water. Water must not be poured into acid.
- Trucks must be properly positioned and brake applied before attempting to change or charge batteries.
- Care must be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) must be open to dissipate heat.

- Smoking is prohibited in the charging area.
- Precautions must be taken to prevent open flames, sparks, or electric arcs in battery charging areas.
- Tools and other metallic objects must be kept away from the top of uncovered batteries.

**Trucks and Railroad Cars**

- Check the flooring of trucks, trailers, and railroad cars for breaks and weakness before driving onto them.
- The brakes of highway trucks must be set and wheel chocks placed under the rear wheels to prevent the trucks from rolling while they are boarded with powered industrial trucks.
- Wheel stops or other recognized positive protection must be provided to prevent railroad cars from moving during loading or unloading operations.
- Fixed jacks may be necessary to support a semitrailer and prevent upending during the loading or unloading when the trailer is not coupled to a tractor.
- Positive protection must be provided to prevent railroad cars from being moved while dockboards or bridge plates are in position.

**Operations**

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

**Traveling**

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

- The driver must slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver must travel with the load trailing.
- Railroad tracks must be crossed diagonally wherever possible. Parking closer than eight feet from the center of railroad tracks is prohibited.
- The driver must look in the direction of and keep a clear view of the path of travel.
- Grades must be ascended and descended slowly. When ascending or descending grades in excess of 10 percent, loaded trucks must be driven with the load upgrade. On all grades, the load and load engaging means must be tilted back if applicable, and raised only as far as necessary to clear the road surface.
- Under all travel conditions the truck must be operated at a speed that will permit it to be brought to a stop in a safe manner.
- Stunt driving and horseplay are prohibited.
- The driver must slow down on wet and slippery floors.
- Dockboard or bridgeplates must be properly secured before they are driven over. Dockboard or bridgeplates must be driven over carefully and slowly and their rated capacity never exceeded.
- Avoid running over loose objects on the roadway surface.
- While negotiating turns, reduce speed to a safe level by turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel must be turned at a moderate, even rate.

**Loading**

- Only stable or safely arranged loads can be handled. Exercise caution when handling off-center loads that cannot be centered.
- Only loads within the rated capacity of the truck can be handled.
- Adjust the long or high (including multiple-tiered) loads that may affect capacity.
- Trucks equipped with attachments must be operated as partially loaded trucks when not handling a load.
- A load engaging means must be placed under the load as far as possible. The mast must be carefully tilted backward to stabilize the load.
- Use extreme care when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated is prohibited except to pick up a load. An elevated load may not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, use only enough backward tilt to stabilize the load.

**Fueling Safety**

- Fuel tanks may not be filled while the engine is running. Avoid spillage.
- Spillage of oil or fuel must be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.
- No truck can be operated with a leak in the fuel system until the leak has been corrected.
- Do not use open flames for checking electrolyte level in storage batteries or gasoline level in fuel tanks.

**Maintenance**

- Any power-operated industrial truck not in safe operating condition must be removed from service. All repairs must be made by authorized personnel.
- Those repairs to the fuel and ignition systems of industrial trucks that involve fire hazards must be conducted only in locations designated for such repairs.

- Trucks in need of repairs to the electrical system must have the battery disconnected before such repairs.
- All parts of any such industrial truck requiring replacement must be replaced only by parts equivalent as to safety with those used in the original design.
- Industrial trucks must not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer. They also can not be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. Additional counter-weighting of fork trucks must not be done unless approved by the truck manufacturer.
- Industrial trucks must be examined before being placed in service, and must not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination must be made at least daily. Where industrial trucks are used on a round-the-clock basis, they must be examined before each shift. Any defects must be immediately reported and corrected.
- When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle must be removed from service and not returned to service until the cause for such overheating has been eliminated.
- Industrial trucks must be kept in a clean condition, free of lint, excess oil, and grease. Noncombustible agents should be used for cleaning trucks. Low flash point (below 100 degrees F) solvents must not be used. High flash point (at or above 100 degrees F) solvents may be used.

# GENERAL MATERIALS HANDLING SAFETY

General material storage safety:

- Make sure that all materials stored in tiers are stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, falling, or collapse.

- Post conspicuously the maximum safe load limits of floors within buildings and structures, in pounds per square foot, in all storage areas, except for floor or slab on grade. Do not exceed the maximum safe loads.

- Keep aisles and passageways clear to provide for the free and safe movement of material handling equipment or employees. Keep these areas in good repair.

- Do not store materials on scaffolds or runways in excess of supplies needed for immediate operations.

- Use ramps, blocking, or grading when a difference in road or working levels exists to ensure the safe movement of vehicles between the two levels.

- Do not place materials stored inside buildings under construction within 6 feet of any hoistway or inside floor openings, or within 10 feet of an exterior wall which does not extend above the top of the material stored.

    (i) Anchor and brace temporary floors used in steel erection, concrete forms, and shoring and other "in-process equipment" that are to be left overnight or for longer periods of time to prevent their displacement in any direction. While in "interim storage," this equipment is subject to the provisions in WAC 296-155-325(2)(i) (see previous bullet point: Do not place materials stored inside buildings under construction within 6 feet of any hoistway or inside floor openings, or within 10 feet of an exterior wall which does not extend above the top of the material stored.)

- When working on stored materials in silos, hoppers, tanks, and similar storage areas, use personal fall arrest equipment meeting the requirements of Chapter 296-155 Part C-1.

- Segregate non-compatible materials in storage.

- Stack bagged materials by stepping back the layers and cross-keying the bags at least every ten bags high.
    (i) Carefully handle cement and lime delivered in paper bags to prevent the bags from bursting.

    (ii) Do not pile cement and lime bags more than ten bags high except when stored in bins or enclosures built for the purpose of storage.

(iii) When bags are removed from the pile, keep the length of the pile at an even height and maintain the necessary step backs every five bags.

(iv) When handling cement and lime bags, wear eye protection preventing any contact with the substance (such as goggles or other sealed eye protection) and wear long sleeve shirts with close fitting collar and cuffs.

(v) Do not wear clothing that has become hard and stiff with cement.

(vi) Make sure to report any susceptibility of skin to cement and lime burns.

(vii) Make sure that a hand cream or Vaseline and eyewash is provided and kept ready for use to prevent burns.

(viii) Store lime in a dry place to prevent a premature slacking action that may cause fire.

- Do not stack bricks more than 7 feet high. When a loose brick stack reaches a height of 4 feet, taper it back 2 inches for every foot of height above the 4-foot level.
  (i) Never stack bricks, for storage purposes, on scaffolds or runways.

  (ii) Always stack blocks; do not throw in a loose pile.

- When stacking masonry blocks higher than 6 feet, taper back the stack one-half block per tier above the 6-foot level.
  (i) When stacking inside a building, distribute the piles to prevent overloading the floor.

  (ii) Do not drop or throw blocks from an elevation or deliver blocks through chutes.

- Do not stack lumber more than 20 feet high; if handling lumber manually, do not stack more than 16 feet high.
  (i) Remove all nails from used lumber before stacking.

  (ii) Stack lumber on level and solidly supported sills, and such that the stack is stable and self-supporting.

  (iii) Stack stored lumber on timber sills to keep it off the ground. Sills must be placed level on solid supports.

  (iv) Place cross strips in the stacks when they are stacked more than 4 feet high.

- If not racked, stack and block structural steel, poles, pipe, bar stock, and other cylindrical materials as to prevent spreading or tilting.
  (i) Wear heavy gloves when handling reinforcing steel.

  (ii) When bending reinforcing steel on the job, use a strong bench set up on even dry ground or a floor to work on.

(iii) Carefully pile structural steel to prevent danger of members rolling off or the pile toppling over.

(iv) Keep structural steel in low piles, giving consideration to the sequence of use of its members.

(v) Stack corrugated and flat iron in flat piles, with the piles not more than 4 feet high; place spacing strips between each bundle.

- Frequently inspect stock piles of sand, gravel, and crushed stone to prevent their becoming unsafe by continued adding to or withdrawing from the stock.
  (i) Do not remove frozen material in a manner that would produce an overhang.

General Rigging Equipment Safety:

- Inspect rigging equipment for material handling prior to use on each shift and as necessary during its use to ensure that it is safe. Remove defective rigging equipment from service.

- Never load rigging equipment in excess of its recommended safe working load.

- Remove rigging equipment when not in use from the immediate work area so as not to present a hazard to employees.

- Mark special rigging accessories (i.e., spreader bars, grabs, hooks, clamps, etc.) or other lifting accessories with the rated capacity. Proof test all components to 125% of the rated load prior to the first use. Maintain permanent records on the job site for all special rigging accessories.

Disposal of waste materials:

- Whenever materials are dropped more than 20 feet to any point lying outside the exterior walls of the building, use an enclosed chute of wood or equivalent material.

- When debris is dropped without the use of chutes, make sure that the area onto which the material is dropped is completely enclosed with barricades at least 42 inches high and 20 feet back from the projected edge of the opening above. Post at each level warning signs of the hazard of falling materials. Do not remove debris in this lower area until debris handling ceases above.

- Remove all scrap lumber, waste material, and rubbish from the immediate work area as the work progresses.

- Make sure to comply with local fire regulations if disposing of waste material or debris by burning.

- Keep all solvent waste, oily rags, and flammable liquids in fire-resistant covered containers until removed from the work site.

# GENERAL SAFETY RULES FOR CONSTRUCTION

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

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

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

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

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

6. Do not block aisles, traffic lanes, fire exits, gangways, or stairs.

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

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

9. Do not remove, deface or destroy any warning, danger sign, or barricade, or interfere with any form of protective device or practice provided for your use or that is being used by other workers.

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

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

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

13. Know the correct use of hand and power tools. Use the right tool for the job.

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

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

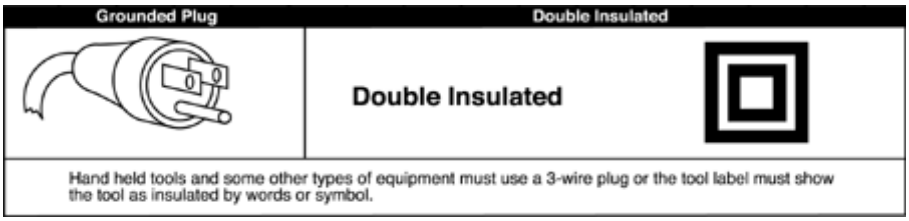
16. Proper guards or shields must be installed on all power tools before use. Do not use any tools without the guards in their proper working condition. No “homemade” handles or extensions (cheaters) will be used!

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

18. All electrical power tools and extension cords must be properly insulated. Damaged cords must be replaced.

19. Do not operate any power tool or equipment unless you are trained in its operation and authorized by your firm to do so.

20. All electrical power equipment and tools must be grounded or double insulated.




21. Use tools only for their designed purpose.

# HAZARD COMMUNICATION PROGRAM

## INTRODUCTION

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

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

The following program outlines how we will accomplish this plan:

### 1. CONTAINER LABELING:

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

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

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

C. This responsibility has been assigned to warehouse foremen, project superintendents, project managers and the company safety coordinator. The responsibility will be assigned as follows:

1. **Warehouse Foremen**
   No chemicals or hazardous materials will leave Kitt Construction & Development, LLC shop without proper labels.

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

3. **Project Managers**
   Shall request SDS sheets on all chemicals or hazardous materials ordered for the job.

## 1. SAFETY DATA SHEETS (SDS)

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

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

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

## 2. EMPLOYEE TRAINING AND INFORMATION

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

The training will be on the following:

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

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

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

## 3. HAZARDOUS NON-ROUTINE TASKS

A. Periodically, employees are required to handle chemicals for hazardous non-routine tasks. Prior to starting work on such projects, each affected employee will be given

information by their supervisor about hazards to which they may be exposed during such an activity.

B. This information will include:

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

## 4. INFORMING OTHER CONTRACTORS

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

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

**NOTE:** The specific method a construction employer uses to inform other contractors at the same jobsite is not prescribed by the rules. It is important that the prime and subcontractors arrange specific procedures to inform one another about their hazard communications programs. The methods should be designed to fit the type of jobsite operations being conducted.

Kitt Construction & Development, LLC requires that this policy be addressed at construction meetings, owner meetings and weekly job meetings or at any time the coordination of safety is needed between the different parties involved in the job.

## 5. PROGRAM EFFECTIVENESS

A. If anyone has questions about this plan, please contact the company Safety Coordinator.

Our plan will be monitored by the Safety Coordinator to ensure that the policies are carried out and that the plan is effective. When necessary, the program will be modified to address any program deficiencies.

# Hazard Communication: Upcoming Changes (GHS)

TOOLBOX TALK AGC

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The Hazard Communication Standard (HCS) is now aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). This update will provide a common and clear approach to classifying chemicals and communicating hazard information. **Due to regulatory changes, on or before June 1, 2015:**

- Material Safety Data Sheets (MSDS) will become Safety Data Sheets (SDS). They serve the same purpose as the MSDS. SDS will provide an easy to read format.

- SDS will contain 16 sections.
  - **Identification**
  - **Hazard(s)**
  - **Composition/information on ingredients**
  - **First-aid measures**
  - **Fire-fighting measures**
  - **Accidental release measures**
  - **Handling and storage**
  - **Exposure controls/personal protection**
  - **Physical and chemical properties**
  - **Stability and reactivity**
  - **Toxicological information**
  - **Ecological information**
  - **Disposal considerations**
  - **Transport information**
  - **Regulatory information**
  - **Other information**


- All labels will be required to have pictograms, a signal word, hazard and precautionary statements, the product identifier and supplier identification.

- Pictograms on labels are designed to alert users of the chemical hazards. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s).

- There are two signal words in the GHS system - Danger and Warning. These signal words are used to communicate the level of hazard on both the label and the SDS.

- The product identifier can be (but is not limited to) the chemical name, code number or batch number.

- The hazard and precautionary statements are used to describe the nature of the hazard(s) and recommended measures to minimize or prevent adverse effects resulting from exposure.

# Hazard Communication: Upcoming Changes (GHS)

TOOLBOX TALK AGC

**Sample Label**

# HEARING CONSERVATION PROGRAM

**POLICY STATEMENT**

In an effort to protect the health of our workforce**,** Kitt Construction & Development, LLC has developed the following Hearing Conservation Program. The intent of this program is two fold, first to protect our workforce from injurious levels of noise and second to test those employees who may on occasion work in an environment in which noise may be present.

This program will go into effect immediately and will apply to all workers who may potentially work around noisy environments. This includes plant operations, (asphalt, RAP, crushers,) shop maintenance, paving operations, and grading operations. Because truck drivers work in and around these areas for short duration's, they too will be subject to the requirements of this program.

**Audiogram** - A chart, graph, or table resulting from an audiometric test showing an individual's hearing threshold levels as a function of frequency.

**Audiologist -** A professional, specializing in the study and rehabilitation of hearing, who is certified by the American Speech, Hearing, and Language Association or licensed by a state board of examiners.

**Baseline audiogram -** The audiogram against which future audiograms are compared.

**Criterion sound level -** A sound level of 90 decibels.

**Decibel (db) –** The Unit of measurement of sound level.

**Hertz -** Unit of measurement of frequency, numerically equal to cycles per second.

**Impulsive or impact noise -** Noise levels which involve maixima at intervals greater than one second. Where the intervals are less than one second, the noise levels shall be considered continuous.

**Medical pathology -** A disorder or disease. For purposes of this regulation, a condition or disease affecting the ear, which should be treated by a physician specialist.

**Noise dose -** the ratio, expressed as a percentage, of (a) the time integral, over a stated time or event, of the 0.6 power of the measured SLOW exponential time-averaged, squared A-weighted sound pressure and (b) the product of the criterion duration (8 hours) and the 0.6 power of the squared sound pressure corresponding to the criterion sound level (90 db).

**Noise dosimeter -** An instrument that integrates a function of sound pressure over a period of time in such a manner that it directly indicates a noise dose.

**Otolaryngologist -** A physician specializing in diagnosis and treatment of disorders of the ear, nose, and throat.

**Representative exposure -** Measurements of an employee's noise dose or 8 hour time weighted average sound level that the employer deems to be representative of the exposure of other employees in the workplace.

**Standard Threshold shift -** A hearing level change, relative to the baseline audiogram, with an average of 10 dB or more at 2000, 3000, and 4,000 Hz in either ear.

**Sound Level -** Ten Times the common logarithm of the ratio of the square of the measured A-weighted sound pressure to the square of the standard reference pressure of 20 micropascals. Unit: Decibels (dB). For use with this regulation, SLOW time response, in accordance with ANSI S1.4-1971 (R1976), is required unless specifically specified otherwise.

**Sound Level meter -** An instrument for the measurement of sound level.

**Time-weighted average sound level -** That sound level, which if constant over an 8 hour period, would result in the same noise dose as if measure in the time varying noise level environment.

**Noise Control**

**Monitoring**

Kitt Construction & Development, LLC plans to perform extensive sound level monitoring of its facilities, and equipment to identify areas, which may potentially cause employee exposure to injurious levels of noise. This information was obtained during normal work processes. Whenever such monitoring was conducted the employees in the area were instructed as to what the process involved and were able to observe the tests as they saw necessary.

**Methods of Testing**

This monitoring included both direct sound level sampling as well as employee dosimeter testing. A Metro sonic dB 307-noise level dosimeter calibrated before and after each days use was used to gather this data. This dosimeter/sound level meter meets the class 2A-90/80-5 requirements of the American National Standard Specifications for Personal Noise Dosimeters, S1.25-1978, as required by OSHA, WISHA, and OR OSHA.

**Employee Notification and Warning Signs**

Whenever employee noise levels equal or exceed an 8-hour time weighted average of 90 dBA, feasible administrative or engineering controls will be utilized.

When monitoring indicates that employee's are exposed at or above an 8-hour time weighted average of 85 dBA, Kitt Construction & Development, LLC will notify the affected employees and when possible-warning signs indicating the hazard area will be posted. Affected employees will also be instructed on the need for utilization of hearing protection and trained as to the proper use of this protection as described in the following section.

**Hearing Protection**

Kitt Construction & Development, LLC will make hearing protectors available to all employees exposed to a time-weighted average of 85dBA or greater at no cost to the employees. Hearing protectors shall be replaced as necessary.

It is the responsibility of all Kitt Construction & Development, LLC supervisory personnel to ensure that hearing protectors are worn:

1. By any employee who is exposed to an 8 hour time weighted average of 85dBA or greater; or
2. By any employee who is exposed to noise above 115dBA; or
3. By any employee who is exposed to any impulsive or impact noise measured at or above 140dB peak using an impulsive sound level meter set to either the linear or C-scale.

**Hearing Protector Attenuation**

Kitt Construction & Development, LLC has evaluated the hearing protector attenuation for the specific noise environments in which the protectors will be used and has determined which hearing protectors are acceptable for use in each environment. Should the employee request a protector which has not been evaluated the safety department will gather the necessary information and make a determination as to the acceptability of the protector for that work environment. Should the protector not provide appropriate attenuation for the employee, **it will not be used by the employee.** Hearing protectors must attenuate employee exposure at least to a time-weighted average of 85 dBA or below.

The adequacy of hearing protector attenuation shall be re-evaluated whenever employee noise exposure increases to the extent that the hearing protectors provided may no longer provide adequate attenuation. The employer shall provide more effective hearing protectors where necessary.

All employees's required to wear hearing protectors will be trained as to their proper use, care, and maintenance. Written information on care and of the equipment can be obtained and made available upon request.

**Audiometric Testing**

Kitt Construction & Development, LLC has established an audiometric testing program as provided in this section for all employees who may be exposed to noise levels equal to or exceeding an 8-hour time weighted average of 85dBA. The program shall be provided at no cost to employees.

Audiometric tests shall be performed by a licensed or certified audiologist, otolaryngologist, or other qualified physician, or by a technician who is certified by the council of accreditation in occupational hearing conservation. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist, or another qualified physician.

**Baseline Audiogram**

Prior to an employee's first exposure to noise at or above a time weighted average of 85dBA, there shall be established for each employee a valid baseline audiogram against which subsequent audiograms can be compared.

Testing to establish a baseline audiogram shall be preceded by least 14 hours without exposure to workplace noise. This may be accomplished by use of hearing protectors; however, the employer shall notify employees of the need to avoid high levels of non-occupational noise exposure during the 14-hour period immediately preceding the audiometric examination.

**Evaluation of Audiogram**

Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if a standard threshold shift has occurred. A certified audiometric technician may make this comparison.

If the annual audiogram indicates that an employee has suffered a standard threshold shift, the employee may be retested within 30 days and the results of the retest may be considered as the annual audiogram.

An audiologist, otolaryngologist or other qualified physicians shall review audiograms, which indicate a standard threshold shift to determine whether there is need for further evaluation. Kitt Construction & Development, LLC shall provide to the person performing this evaluation the following information:

1. A copy of the requirements for hearing conservation.
2. The baseline audiogram and most recent audiogram of the employee to be evaluated.
3. Measurements of background sound pressure levels in the audiometric test room as required by law.
4. Records of audiometer calibrations.
5. Inform each employee of the results of his/her audiometric test and whether or not there has been a hearing level decrease or improvement since his/her previous test.

**Follow-up Procedures**

If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift, the following steps shall be taken:

1. Employee not using hearing protectors shall be fitted with hearing protectors, trained in their use and care, and required to use them.
2. Employees already using hearing protectors shall be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.
3. The employee will be informed, in writing, within 21 days of the determination, of the existence of a standard threshold shift.

4. The employee will be referred, at no cost to the employee, for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if Kitt Construction & Development, LLC suspects that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors, and;
5. The employee will be informed of the need for an otological examination if a medical pathology of the ear, which is unrelated to the use of hearing protectors, is suspected.

**Revised Baseline**

An annual audiogram may be substituted for the baseline audiogram when, in the judgment of the audiologist, otolaryngologist or other qualified physician who is evaluation the audiogram:

1. The standard threshold shift revealed by the audiogram is persistent; or
2. The hearing threshold shown in the annual audiogram indicates significant improvement over the baseline audiogram.

**Accessibility to Records**

All records concerning an employees hearing tests and/or results, as well as the laws by which this policy is governed will be made available to the employee upon request.

# HEAT STRESS PROGRAM

**Purpose**

To provide a safe and healthful working environment and protect Kitt Construction & Development, LLC employees who perform work in an outdoor environment. Kitt Construction & Development, LLC will evaluate and reduce hazards if employees are exposed to temperature extremes.

**Policy**

It is the policy of Kitt Construction & Development, LLC that all affected employees are required to comply with this Heat Related Illness policy and are encouraged to actively participate in identifying ways to reduce the risk of experiencing heat related illness in the workplace.

It is also the policy of Kitt Construction & Development, LLC to check the workplace for unsafe conditions, monitor the health and safety of employees, and take prompt action in response to any identified heat related illness hazards.

**Hazard Evaluation**

Kitt Construction & Development, LLC has evaluated the workplace and identified the following heat related illness hazards:

- Heat during the months of May, June, July, August, September
- Reflected heat from pavement
- Radiated heat from equipment, tar, torches
- Heavy clothing and PPE's
- Specific job duties like paving, flagging, roofing, digging, etc.

**Temperature Trigger Chart**

To determine the temperature trigger, select the type of clothing or PPE the employee is wearing and whether the work is being performed in the direct sun or the shade.

| Type of clothing | Work in direct sun |
|---|---|
| Work Clothes | 80° F |
| Vapor barrier (e.g.: encapsulating suit or turn-out gear) | 52° F |

Note: The trigger temperatures in the table are based on a dew point of 50° F and were developed for use by the state of Washington.

**Prevention, Controls, and Correction of Hazards**

When heat related illness hazards are present the following actions will be taken:

- Additional rest breaks will be provided during peak temperature times
- Water will be provided and made readily accessible in sufficient quantity to provide one quart per employee per hour
- Employees will be encouraged to frequently drink small quantities of water since 1 quart or more over the course of an hour may be necessary when the work environment is hot and employees may be sweating more than usual during the performance of work

- New employees or employees off the job for two weeks or more will limit time of moderate to heavy work to 50% on the first day and increase work by 10% each day until acclimatized.
- This could be a work/rest regimen, starting jobs earlier and ending earlier to avoid the hot times of the day, provisions for gaining access to shade, etc
- Shaded areas will be available for breaks
- Employees working in remote locations will be contacted periodically

**High Heat Procedures**

When temperatures exceed 89 degrees Fahrenheit, unless engineering or administrative controls (such as air-conditioning or scheduling work at cooler times of the day) are used to lower employee exposure below 89-degree Fahrenheit. Ensure that employees take at minimum the mandatory cool-down rest periods in Table 2. The cool-down rest periods must be provided in the shade or using other equally or more effective means to reduce body temperature. The mandatory cool-down rest period may be provided concurrently with any meal or rest period required under the requirements paid unless taken during a meal period.

**Table 2**

| Air Temperature | Mandatory cool-down rest periods |
|---|---|
| At or above 89° F | 10 minutes/2 hours |
| At or above 100° F | 15 minutes/1 hour |

**First Aid awareness and actions in the event of a heat related illness**
The following chart helps employees recognize the main types of heat related illnesses, signs, symptoms, and the appropriate treatment to reduce the effects of the heat related illness. This chart will be posted safety board.

| | Signs and Symptoms | First Aid and Treatment |
|---|---|---|
| **Sunburn** | • red, hot skin<br>• may blister | • move to shade, loosen clothing<br>• apply cool compresses or water |
| **Heat Rash** | • red, itchy skin<br>• bumpy skin<br>• skin infection | • apply cool water or compresses<br>• keep affected area dry<br>• control itching and infection with prescribed medication |
| **Heat cramps** | • muscle spasms in legs or abdomen<br>• grasping the affected area<br>• abnormal body position | • move person to a cooler location<br>• stretch or massage muscles for cramps<br>• get medical evaluation if cramps persist<br>• give cool water or electrolyte-containing fluid to drink |
| **Heat exhaustion** | • headaches<br>• clumsiness | • move person to a cooler place (do not leave alone) |

| | | |
|---|---|---|
| | • dizziness/lightheadedness/fainting<br>• weakness/exhaustion/fatigue<br>• heavy sweating/clammy/moist skin<br>• irritability/confusion<br>• nausea/vomiting<br>• paleness<br>• high pulse rate | • loosen and remove heavy clothing that restricts evaporative cooling<br>• if conscious, provide small amounts of cool water to drink<br>• fan person, spray with cool water, or apply a wet cloth to skin to increase evaporative cooling<br>• lay flat and elevate feet<br>• evaluate mental status (ask who, where, when questions)<br>• call 911 if not feeling better within a few minutes |
| **Heat stroke** | • any of the above, but more severe<br>• sweating may or may not be present<br>• red or flushed, hot dry skin<br>• bizarre behavior<br>• mental confusion or losing consciousness<br>• panting/rapid breathing<br>• rapid, weak pulse<br>• seizures or fits<br>• can be fatal | • **call 911**<br>• move person to a cooler place (do not leave alone)<br>• cool worker rapidly<br>• if conscious, provide small amounts of water to drink<br>• loosen and remove heavy clothing that restricts evaporative cooling<br>• fan person, spray with cool water, or apply a wet cloth to skin to increase evaporative cooling<br>• lay flat and elevate feet<br>• monitor airway and breathing, administer CPR if needed |

In the event that medical treatment is needed beyond first aid and 911 must be called, the field staff with the heat stress effected person should call 911 for medical assistance and then call Casey Kitt to notify him of the situation.

**Training**

All training will be provided prior to outdoor work assignments presenting heat related illness hazards during the months of May, June, July, August, and September, and at least annually thereafter. Training will be documented and kept on file. Temperature exposure records are not required to be kept.

**Employee training**

Effective training in the following topics must be provided to all employees who may be exposed to a heat-related illness hazard:

- The environmental factors and other work conditions (i.e., workload, work duration, personal protective equipment, clothing) that contribute to the risk of heat-related illness.
- General awareness of personal factors that may increase susceptibility to heat illness including but not limited to, an individual's age, physical fitness, degree of acclimatization, medical conditions,

drinking water consumption, alcohol use, previous heat-related illness, pregnancy and use of medications that affect the body's response to heat.
- The importance of removing heat-retaining personal protective equipment and clothing such as nonbreathable chemical resistance clothing during all breaks.
- The importance of frequent consumption of small quantities of water or other acceptable beverages
- The acclimatization, requirements under WAC 296-62-09545, the concept of acclimatization, and the importance of the following considerations.
- The importance of taking preventative cool-down rest periods when employees feel the need to do so in order to protect themselves from overheating.
- The mandatory cool-down rest periods under WAC 296-62-09547 when the outdoor temperature reaches or exceeds 89 degrees Fahrenheit.
- The employers' procedures for providing shade or other sufficient means to reduce body temperature, including the location of such means and how employees can access them.

rest periods.

**Supervisor training**

Prior to assignment, supervisors must have training on the following topics:
- The information required to be provided in employee training above.
- The procedures the supervisor is to follow to implement the applicable provisions in this section;
- The procedures the supervisor is to follow when an employee exhibits signs or symptoms consistent with possible heat-related illness, including emergency response procedures;
- Procedures for moving employees to a place where they can be reached by an emergency medical service provider, if necessary; and
- How to provide clear and precise directions to the emergency medical provider who needs to find the work site.

**Definitions**

"Acclimatization" –The body's temporary adaptation to work in the heat that occurs as a person is exposed to it over a period of seven to 14 days depending on the amount of recent work in the heat and the individual factors. Acclimatization can be lost after seven consecutive days away from working in the heat.

"Buddy System"- A system where individuals are paired or teamed up into work groups so each employee can be observed by at least one other member of the group to monitor and report signs and symptoms of heat-related illness.

"Drinking water" – means water satisfying the Department of Health's requirements as potable water suitable for drinking by the public. Water packaged as a consumer product is an acceptable source of drinking water.

"Environmental risk factors for heat related illness" - means working conditions that increase the susceptibility for heat related illness including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, clothing and personal protective equipment worn by employees.

"Heat Related Illness" (HRI) - means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes, but not limited to, heat cramps, heat rash, heat exhaustion, heat syncope (fainting), and heat stroke.

"Outdoor environment" – means an environment where work activities are conducted outside of a building shell (generally referring to a ceiling and at least three sides). Environments such as vehicle cabs, sheds, and tents, or other non-permanent structures may be considered an outdoor environment when the environmental factors are not controlled.

"Personal risk factors for heat related illness" - means factors including, but not limited to, an individual's age, degree of acclimatization, health, medical condition, water consumption, alcohol consumption, caffeine consumption, nicotine consumption, and use of prescription and non-prescription medications that affect the body's water retention or other physiological responses to heat.

"Shade"- A blockage of direct sunlight. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning. Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions and that does not deter or discourage access or use

.

"Vapor barrier clothing"- Clothing that significantly inhibits or completely prevents sweat produced by the body from evaporating into the outside air. Such clothing includes encapsulating suits, various forms of chemical resistant suits used for PPE, and other forms of nonbreathable clothing

*See the Heat Stress Checklist in the appendix.*

# HEAT STRESS CHECK LIST

- Does the worksite have temperature extremes (above 85 degrees in higher humidity, above 90-95 degrees in lower humidity) that may cause heat stress?

- Do employees do heavy labor or wear heavy protective clothing? (increases heat stress conditions)

- Do employees have access to adequate drinking water at all times?

- Are employees allowed work breaks during prolonged heavy labor?

- Do workers have access to shade during breaks?

- Have employees been trained on the symptoms of heat-related illness (heat exhaustion and heat stroke) ?

- Are employees trained on first aid measures for heat-related illness?

# LADDER SAFETY RULES

General:

- Inspect before use for physical defects.
- Ladders are not to be painted except for numbering purposes.
- Do not use ladders for skids, braces, workbenches, or any purpose other than climbing.
- When you are ascending or descending a ladder, do not carry objects that will prevent you from grasping the ladder with both hands.
- Always face the ladder when ascending and descending.
- If you must place a ladder over a doorway, barricade the door to prevent its use and post a warning sign.

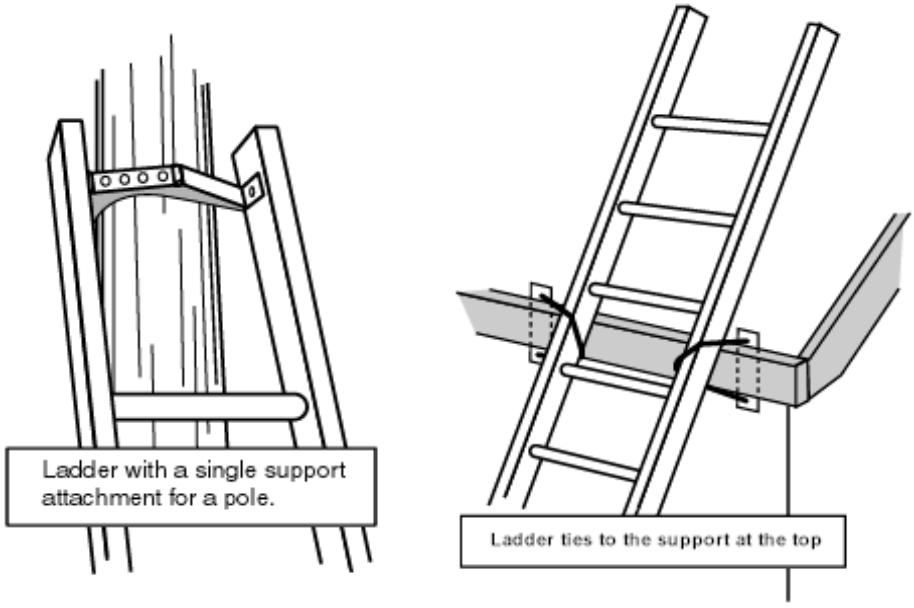
- Only one person is allowed on a ladder at a time.
- Do not jump from a ladder when descending.
- All joints between steps, rungs, and side rails must be tight.
- Safety feet must be in good working order and in place.
- Rungs must be free of grease and/or oil.

Stepladders

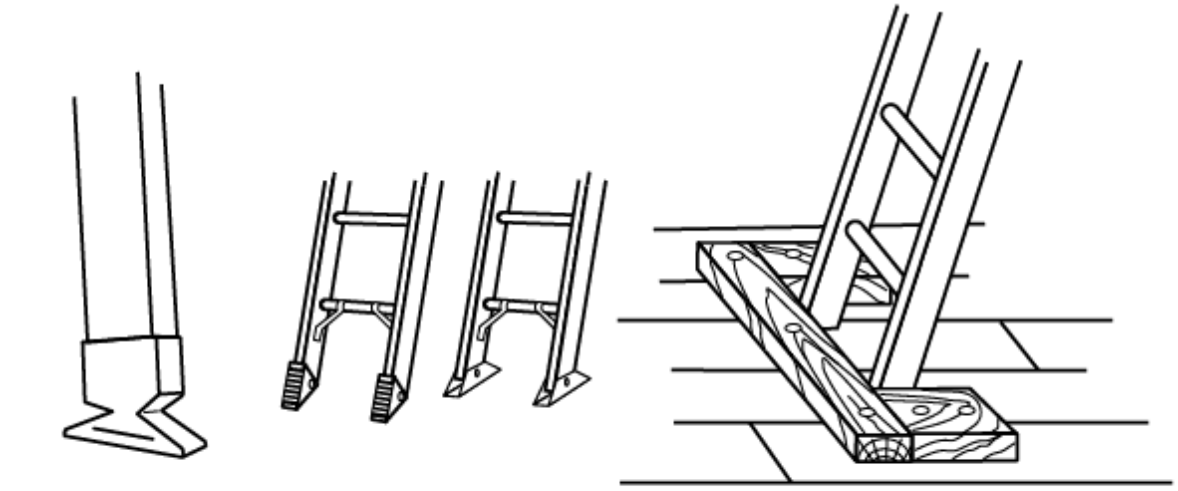
- Do not place tools or materials on the steps or platform of a stepladder.
- Do not use the top two steps of a stepladder as a step or stand.
- Always level all four feet and lock spreaders in place.
- Do not use a stepladder as a straight ladder.

Straight type or extension ladders

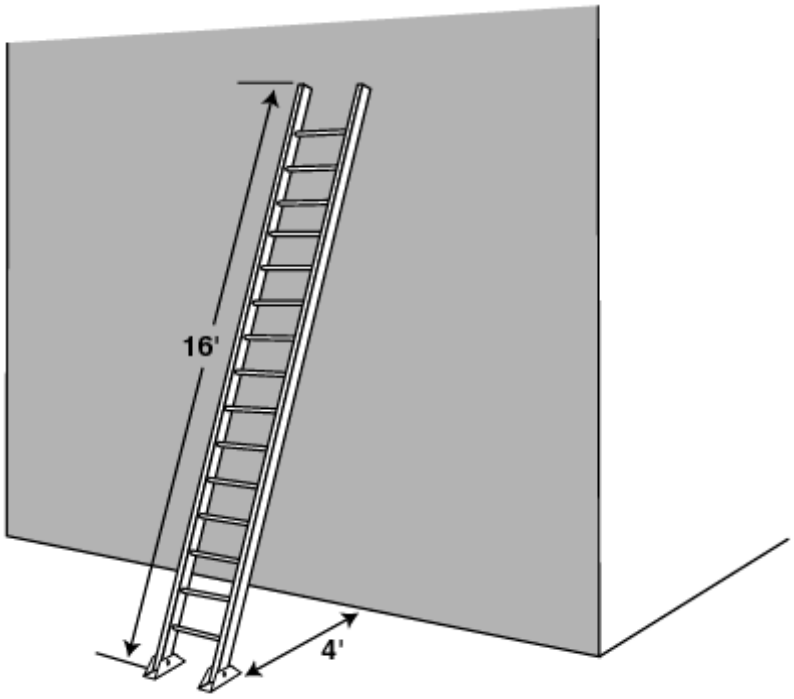
- All straight or extension ladders must extend at least three feet beyond the supporting object when used as an access to an elevated work area.
- After raising the extension portion of a two or more stage ladder to the desired height, check to ensure that the safety dogs or latches are engaged.
- All extension or straight ladders must be secured or tied off at the top.




- All ladders must be equipped with safety (non-skid) feet.




- Portable ladders must be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder.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# LOCK-OUT/TAG-OUT POLICY

## PURPOSE

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

## POLICY

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

## DEFINITIONS

**Energized**
Connected to an energy source or containing residual or stored energy.

**Energy Source**
Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy, including gravity.

**Lockout**
The placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

**Lockout Device**
A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in the safe position and prevents the energizing of a machine or equipment.

**Tagout**
The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

**Energy Isolating Device**
A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker, a disconnect switch, a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole can be operated independently, a line valve, a block, and any similar device used to block or isolate energy. Push buttons, selector switches, and other control circuit type devices are not energy isolating devices.

## PROCEDURE

**1. Application**

These procedures are required for all activities in which the unexpected release or transmission of energy or a material could cause injury to employees or damage to equipment. This policy applies to energy sources such as electrical, mechanical, hydraulic, pneumatic, radiation, thermal, compressed air, energy stored in springs, and potential energy from suspended parts (gravity).

Before beginning work on the machine or equipment, notify all affected employees that servicing or maintenance is required and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.

The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.

Before de-energizing any equipment, machinery, or electrical equipment and applying a Lockout / Tagout procedure, written permission will be obtained from an authorized owner / client representative specifying the date, inclusive items of lockout, and specific equipment to be locked out.

An authorized signature, date, and phone number are required prior to commencing the Lockout / Tagout procedure.

**2. Locks**

All persons having the need to enter a locked out area or system will be issued as many locks as necessary to perform the expected tasks of the job. Lockout locks will be identified with the individual's lock number and name. One key will be issued with each lock. The remaining keys will be forwarded to the Safety Office.

**3. Identification of Lockout Points**

Lock out points will be identified by a qualified person, operator, or supervisor who understands how to effectively control the equipment / process through application of hazard isolating devices.

**4. Placement of Locks**

a. The owner/ client must be notified and have given approval to lockout the system or equipment before attaching the locks to the isolating devices. A stop button or electrical interlock must never be used as a substitute for lockout.

b. After lockout and prior to commencement of work, one or more of the following actions must be taken with the assistance of the qualified operator. The lockout list must be signed, verifying the start up attempt.

c. It is the responsibility of each person working within the lockout area to place his/her own lock on all lockout points. Use of another person's lock (i.e. working in the area under the security of another person's lock) is **STRICTLY FORBIDDEN.** During construction and prior to check out of the system a single lockout device may be attached by the supervisor in charge of the installation of equipment.

d. When more than one employee is required to lockout the same system or equipment, one lock with a tag identifying all employees on the crew shall be used. The crew foreman shall sign the tag and be responsible for accounting for all crew members prior to removing locks and re-energizing the system. Crew members entering the area shall initial the lockout tag and, prior to removing the tag, shall re-initial the lockout tag.

e. If a job extends over a change in shifts, the person coming on the job shall put his/her lock on all the lockout points and the person leaving shall remove his/her locks.

**5. Removal of Locks/Restoring Equipment to Service**

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operation condition, the following steps shall be taken.

a. Check the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.

b. Check the work area to ensure that all employees have been safely positioned or removed from the area.

c. Verify that the controls are in neutral.

d. Remove the lockout devices and re-energize the machine or equipment. Note: The removal of some forms of blocking may require re-energizing of the machine before safe removal.

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

***6. If an employee who has finished a job leaves the work site without removing his/her lock, a department supervisor or, in his/her absence, the Project Superintendent may remove the lock using the following steps in the order shown.***

a. Determine whether the employee whose lock remains on the equipment has left the work site by checking his/her time card. If the employee has not left the site, he/she will be called back to complete the job and/or remove the lock.

b. If the employee has left the site, a reasonable attempt to reach him/her will be made to verify why the lock was not removed. The employee will be requested to return to the work site to remove his/her lock.

c. If the employee cannot be reached, a reasonable attempt to contact his/her supervisor will be made to verify why the lock was not removed.

d. If the supervisor cannot be contacted or does not know if the employee has finished the job, the equipment or system must be thoroughly inspected and determined to be safe for operation. This must be verified by an authorized owner/client representative. The lock may then be removed and the equipment or systems tested for operation. If the test is normal, the equipment will be turned over to regular operation.

e. The locks removed by a supervisor will be retained and sent to the Safety Supervisor, along with a brief report explaining why the removal was necessary, the time removed, and by whom.

f. If the equipment or system is of suck a size that the operator cannot see all potential hazard points, personnel shall be stationed at the points of access which are not visible to assure that no one enters an exposed area during start up.

**7. Alternative Methods**

***An alternative method of lockout as provided by the State Safety Standards WAC 296-79-220 (7) has been approved by the State Department of Labor and Industries. The lock-box method is available for use in specific applications Requests to implement this method must be submitted to the Safety Office for review by an authorized Owner/Client representative. Approval of each specific application must be granted by the Safety Office and an authorized Company representative, in writing before it is put into effect. The Safety Office will maintain a list of approved Lock-box applications, which will be forwarded to departments and the project superintendent.***

**Lock Box Method**

a. This alternative procedure is intended for situations that may involve numerous lockout points, may involve a large number of employees, will take more that two shifts, or may occur routinely.

b. Required lockout points for the job in question will be established by the qualified department supervisor and listed on the lockout list. A list of the lockout points will be posted at the work site and on the lock box so that employees may physically verify the placement of department locks.

c. A qualified supervisor and a qualified operator will deactivate equipment, place locks and sign the list of lockout points, verifying that each and every lock is in place and that the keys have been placed in the lock box.

d. The Qualified supervisor will then place his/her personal lock on the box.

e. Any employee on the job where the lock-box procedure is in use may opt to place his/her lock on the lock- box.

f. After lockout and prior to commencement of work, one or more of the following actions must be taken with the assistance of the qualified operators and the lockout list signed verifying the start up attempt.

1. Operate the equipment/process controls (push buttons, switches, etc.) to verify that energy isolation has been accomplished. Controls must be deactivated or returned to the neutral mode after the test.

2. Check the equipment/process controls by using test instruments and/or visually.

g. All other aspects of the lockout procedure must be met.

# MOTORIZED VEHICLES AND EQUIPMENT

1. Do not ride on motorized vehicles or equipment unless a proper seat is provided for each rider.
2. Always be seated when riding authorized vehicles (unless they are designed for standing).
3. Do not operate any motorized vehicle or equipment unless you are specifically authorized to do so by your supervisor.
4. Always use your seat belts in the correct manner.
5. Obey all speed limits and other traffic regulations.
6. Always be aware of pedestrians and give them the right-of-way.
7. Always inspect your vehicle or equipment before and after daily use.
8. Never mount or dismount any vehicles or equipment while they are still in motion.
9. Do not dismount any vehicle without first shutting down the engine, setting the parking brake and securing the load.
10. Do not allow other persons to ride the hook or block, dump box, forks, bucket or shovel of any equipment.
11. Each operator must be knowledgeable of all hand signals and obey them.
12. Each operator is responsible for the stability and security of his/her load.
13. Each operator must be in compliance with our Fit for Duty Policy from the Employee Manual.

*For other rules and regulations regarding motor vehicles, mechanized equipment and marine operations, please refer to Part M of the construction Safety Standard, WAC 296-155.*

# PROCEDURE FOR INJURY OR ILLNESS ON THE JOB

A. Owner or lead person immediately takes charge

1. Supervise and administer first aid as you wish (Good Samaritan Law applies).
2. Arrange for transportation (ambulance, helicopter, company vehicle, etc.), depending on the seriousness of the injury. Protect the injured person from further injury.
3. Notify owner or top management, if not already present.
4. Do not move anything unless necessary, pending investigation of the incident.
5. Accompany or take injured person(s) to doctor, hospital, home etc. (depending on the extent of injuries).
6. Take injured person to family doctor, if available.
7. Remain with the injured person until relieved by other authorized persons (manager, EMT, doctor, etc.).
8. When the injured person's immediate family is known, the owner or supervisor should properly notify family members, preferable in person, or have an appropriate person do so.

B. Documentation

**1.** Minor injuries – requiring doctor or outpatient care: After the emergency actions following an injury, an investigation of the incident will be conducted by the immediate supervisor and any witness to determine the causes.

**2.** Major injuries – fatality or hospitalizations: Top management must see that the Department of Labor and Industries is notified as soon as possible, but at least within 8 hours of the incident. Call or contact in person the nearest office of the Department or call the OSHA toll free central number (1-800-321-6742). Top management will then assist the Department in the investigation. In the event of any non-hospitalized amputation or loss of eye due to an on-the-job-inury, LNI must be notified within 24 hours by calling 1-800-423-7233.

**3.** The findings must be documented on our incident investigation report form and recorded on the OSHA 300 log, if applicable. (Sample incident investigation report form included in this document.)

C. Near Misses

1. All near-miss incidents (close calls) must be investigated.

2. Document the finding on the company incident investigation report form.

3. Review the findings at the monthly safety meetings or sooner if the situation warrants.

# EMPLOYEE REPORT OF INJURY FORM

**Instructions**: Your employees may use this form to report all work related injuries, illnesses, or "near miss" events (which could have caused an injury or illness) – *no matter how minor*. This helps you to identify and correct hazards before they cause serious injuries. This form should be completed by employees as soon as possible and given to a supervisor for further action.

| | |
|---|---|
| I am reporting a work related: ❑ Injury ❑ Illness ❑ Near miss | |
| Your Name: | |
| Job title: | |
| Supervisor: | |
| Have you told your supervisor about this injury/near miss? ❑ Yes ❑ No | |
| Date of injury/near miss: | Time of injury/near miss: |
| Names of witnesses (if any): | |
| Where, exactly, did it happen? | |
| What were you doing at the time? | |
| Describe step by step what led up to the injury/near miss. (continue on the back if necessary): | |
| What could have been done to prevent this injury/near miss? | |
| What parts of your body were injured? If a near miss, how could you have been hurt? | |
| Did you see a doctor about this injury/illness? ❑ Yes ❑ No | |
| If yes, whom did you see? | Doctor's phone number: |
| Date: | Time: |
| Has this part of your body been injured before? ❑ Yes ❑ No | |
| If yes, when? | Employer: |
| Your signature (optional): | Date: |

# RESPIRATOR PROGRAM

**Purpose**

The purpose of the Kitt Construction & Development, LLC Respiratory Protection Program is to establish minimum guidelines for the proper selection, use, inspection, and maintenance of respiratory protection equipment.

**Scope**

This standard applies to all Kitt Construction & Development, LLC employees and subcontractors.

**Definitions**

1. Air-Purifying Respirators: Air-purifying respirators use chemical cartridges to remove harmful substances from the air. Air-purifying respirators are NOT for use in oxygen-deficient or Immediately Dangerous to Life or Health (IDLH) atmospheres.

2. Air-Supplied Respirators: Breathable air is supplied to the wearer from an independent source.

3. Approved Respirator: A respirator that has been tested and approved by both the National Institute of Occupational Safety and Health (NIOSH) and the Mine Safety and Health Administration (MSHA).

4. Competent Person: One who is capable of identifying existing and predictable hazards associated with respiratory protection, and who has the authority to take prompt corrective measures to eliminate them.

5. Dust: Solid particles suspended in air generated by processes such as crushing, grinding, or blasting.

6. Fume: Airborne particulate formed by the evaporation of solid materials.

7. High-Efficiency Particulate Air (HEPA): Air filter cartridge that provides protection against particles such as silica and lead. HEPA filters have a particle removal efficiency of no less than 99.97%.

8. Immediately Dangerous to Life or Health (IDLH): Any condition that poses either an immediate threat to life or health, or an immediate threat of severe exposure to contaminants that are likely to have adverse delayed effects on health.

9. Mist: The suspension of liquid droplets in the air.

10. Negative-Pressure Respirator: When inhaling, the pressure inside the respirator is lower than the outside air pressure.

11. Parts Per Million (ppm): Unit of Measurement. A way of expressing minuscule concentrations of pollutants in air, water, or soil.

12. Permissible Exposure Limit (PEL): The maximum concentration of an air contaminant that a worker can be exposed to on a repeated basis without developing adverse effects. The PEL is published by OSHA and is legally enforceable.

13. Positive-Pressure Respirator: The pressure inside the face piece is never lower than the air pressure outside the face piece. A positive-pressure respirator offers greater protection than a negative-pressure respirator.

14. Protection Factor (PF): The degree of protection afforded by a respirator. For example, a half-mask respirator with HEPA filters in a lead environment will protect you up to ten times the PEL (50 $\mu g/m^3$), or 500 micrograms.

15. Respirator: A device used to deliver uncontaminated air to the user, either by air-purifying or -supplying devices.

16. Time Weighted Average (TWA): The concentration of a contaminant in air that has been weighted for a specific time period, usually eight hours, to which most workers can be exposed during a normal schedule without adverse effects.

17. Vapor: Gaseous form of a substance that is normally in the solid or liquid state.

**General Information**

1. Respiratory protection shall conform to state and federal regulations.

2. Manufacturer's operating and maintenance manuals shall be read and understood by all persons who use or maintain respirators.

3. A competent person shall be designated to administer the Kitt Construction & Development, LLC. Respiratory Protection Program. This will be the Safety Coordinator or Casey Kitt.

4. Kitt Construction & Development, LLC work environments may sometimes include exposure to various airborne contaminants. These contaminants may include vapors, dusts, fumes, and mists.

5. Normally, control and prevention of airborne contamination is accomplished by accepted engineering and administration control measures. When such controls are not feasible (during control, equipment installation, or during emergency situations), personal respiratory protection may be necessary and shall be used in accordance with these procedures.

6. Material Safety Data Sheets (MSDSs) and relative product information provide ways of identifying potential contaminants and can help users identify which respirators are best suited for the contaminant.

**Respirator Protection**

1. Respirator selection will be based on the following:

    a. The nature of the hazard.

    b. Level of concentration of contaminant.

    c. The characteristics of the hazardous operation or process.

d. The location of the hazardous area.

e. The period of time the respirator will be worn.

f. The work activity.

g. The characteristics, limitations, and capabilities of the respiratory protection equipment.

h. The employee's health.

i. The protection factor and the fit of the respirator.

**NOTE:** Only approved respirators will be selected, issued, and used.

**Types of Respirators**

1. Air-Purifying

   a. These respirators use chemical cartridges to remove harmful substances from the air. There are three types:

      - Half-Mask
      - Full-Face
      - Powered Air-Purifying (PAPR)

   NOTE: Air-purifying respirators shall not be used in oxygen-deficient or IDLH atmospheres. They shall be used in accordance with their limitations and only for the contaminant(s) for which they are specifically designed.

   b. Always read the chemical cartridge label to identify the contaminant it will protect against.

   c. Chemical cartridges shall be replaced in the instances below:

      - Breathing becomes difficult.
      - An unusual odor, taste, irritant, etc., is detected inside the mask.
      - Respirator becomes uncomfortable.
      - Wearer experiences dizziness, nausea, coughing, or shortness of breath.

2. Air Supplied Respirators

   a. These respirators supply breathable air to the wearer from an independent source. There are two types:

      - Self-Contained Breathing Apparatus (SCBA) supplies breathable air from a tank worn on the body.

- Airline Respirator supplies breathable air from an independent air source, such as a compressor or air cylinder.

**NOTE:** An airline respirator shall not be used in an oxygen-deficient or IDLH atmosphere, unless equipped with an independent emergency escape bottle.

- Breathable air must meet at least the requirements for Grade "D" breathable air as defined in the Compressed Gas Association Specification G-7.1-1973.

- If an oil-lubricated compressor is used, it must be equipped with a carbon monoxide/air purifier monitor.

- Carbon monoxide/air purifier monitors are to be used with airline respirators only.

- Air supplied will go through the carbon monoxide/air purifier and will not be bypassed by any other source. The carbon monoxide/air-purifier is not to be used as an air monitor only. It is to be used as carbon monoxide and air purifier.

- Carbon monoxide/air purifier monitors are to be protected from abrasives, paint, and damage, both internally and externally. Units shall be closed between periodic visual checks. The carbon monoxide/air purifier monitor is to be protected externally by use of plastic, tarps, or such. Carbon monoxide/air purifier monitors that may already show contaminants on the outside shall also be protected.

**Medical Surveillance**

- A medical evaluation in the form of a medical questionnaire shall be filled out by the wearer prior to activities requiring respirator use.

- A qualified physician or a designee (under the direction of a physician) shall determine each employee's suitability for wearing respirators and medical restrictions, if any. The determination shall be based on the medical evaluation, history, and the physician's opinion.

- All medical evaluation records shall be treated as confidential.

- A medical clearance form, or the equivalent, shall be in each affected employee's file, stating the employee's ability to wear a respirator.

**Fitting of Respirators**

- Respirator fitting is necessary to ensure the compatibility of the employee to the respirator, and to ensure the integrity of the respirator-to-face seal.

- Qualitative fit testing (preferably irritant smoke) shall be used to help determine a wearer’s satisfactory fit. This is to be used only with employees wearing half mask air purifying respirators.

- Employee should be given the opportunity to select a respirator from an array of various sizes and manufacturers that includes at least three sizes and two manufactures.

- Respiratory fit testing shall be documented and performed annually. Testing should also be done every time an employee goes through any physical and/or facial change, including weight loss or gain, new dentures or other oral appliances.

- Persons unable to obtain a fit shall not use a respirator and not be exposed to environments that require respirator use.

- A field test or positive/negative pressure test shall be done each time a respirator is worn. See test procedures section

**Fit Test Procedures**

***1. Negative Pressure***

a. Cover air inlets. If there is an airline or hose, squeeze it closed.
b. Inhale and hold breath for 10 seconds.
c. Face piece should remain collapsed for the duration.
d. If successful, the seal is then satisfactory.

***2. Positive Pressure***

a. Cover exhalation valve.
b. Exhale gently into the face piece.
c. Face piece should bulge slightly with no air leakage.
d. If successful, the seal is then satisfactory.

**Respirator Sealing**

1. Respirators must not be worn when conditions prevent a tight seal between the respirator and the wearer.

2. The following conditions prevent proper seals or reduce the efficiency of the respirator, and are prohibited:

   a. Hair, including whiskers, sideburns, beards, low hairline, bangs, etc., which passes between the face and the sealing surface of a respirator face piece. See facial hair guidelines.

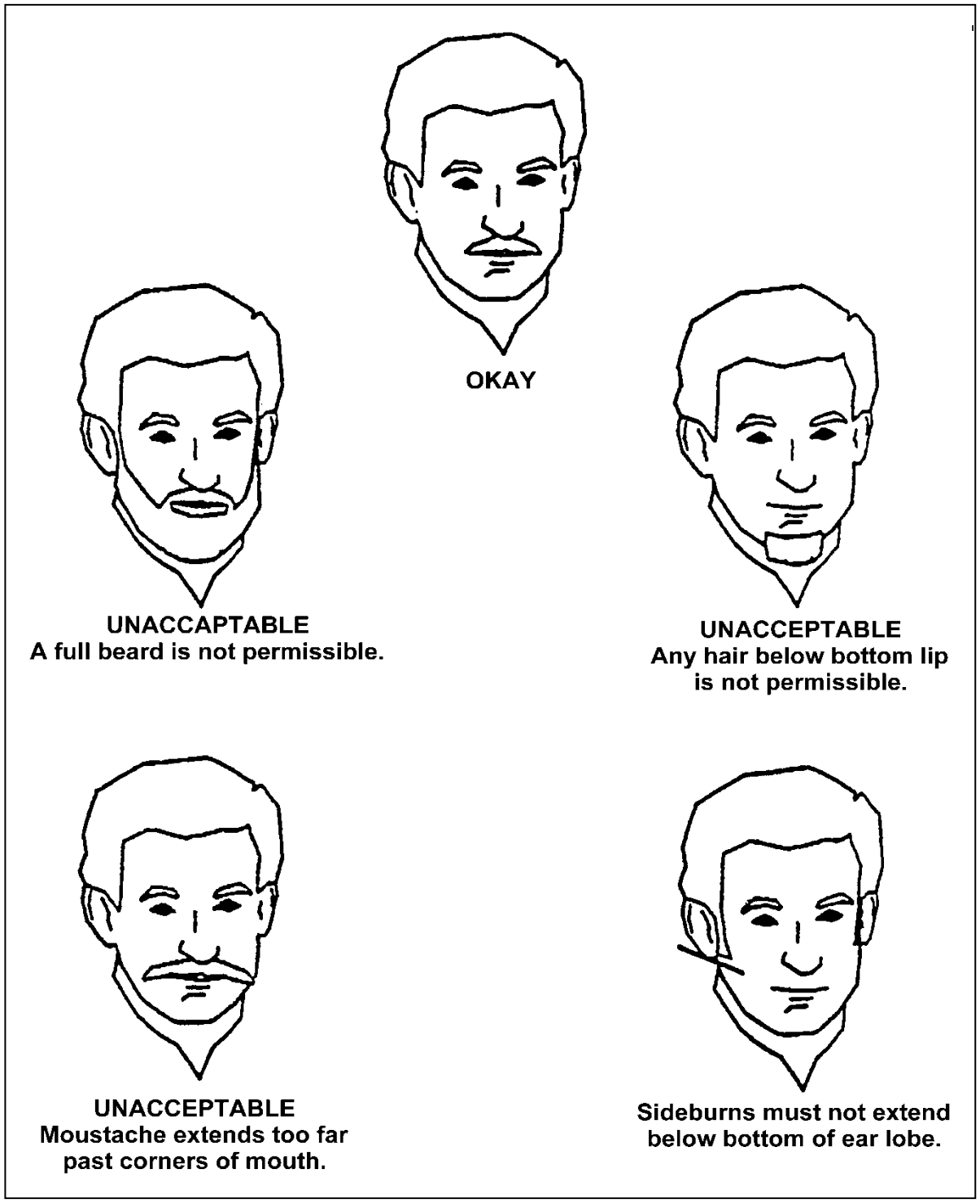
   b. Eyeglasses that have temple bars or straps that pass between the sealing surface of a respirator and the wearer's face.

   c. A head covering which passes between the sealing surface of the respirator and the wearer's face.

   d. The wearing of safety glasses, goggles, face shields, welding helmets, or other eye and face protective devices which interfere with the proper seal of the respirator.

   e. The presence of scars, hollow temples, excessive protruding cheekbones, deep creases in facial skin, the absence of teeth or dentures, or other facial configurations that prevent the seal of a respirator face piece to a wearer's face.

**Facial Hair Guidelines**




**Respirator Care**

1. Employees shall be issued their own respirator.

2. Each employee shall be responsible for proper cleaning, inspecting, maintaining, and storing or disposing of the respirator they use.

3. Employees shall be instructed not to use any harsh chemicals to clean their respirator because damage could occur.

**Training**

1. All respirator users shall be trained by a competent person.

2. Training shall include the following:

    a. The need, selection, use of, capabilities, limitations, cleaning, and maintenance of respirators to be used.

    b. The nature of the hazard (whether acute, chronic, or both) and a description of what may happen if the respirator is not worn.

    c. Why engineering controls are not always available or feasible, including the recognition that every reasonable effort is being made to reduce or eliminate the need for respirators.

    d. Why a specific type of respiratory protective equipment is, or is not, appropriate for a particular job.

    e. How to recognize or cope with emergency situations.

    f. How to recognize when the respirator is not working properly and when and how to change the chemical cartridge.

    g. How to obtain a new respirator and cartridges.

    h. The requirements and procedures for inspection before each use and after seal.

    i. The procedures for pre-entry fit checking, specifically positive- and negative-pressure checks.

    j. This training will be given on an annual basis by the Safety Department to all employees who are required to wear a respirator.

**Record Keeping**

1. Original records shall be sent to the Safety Department, with copies being kept on site.

2. Medical records for each employee shall be preserved and maintained for at least the duration of employment, plus thirty years.

3. Employee exposure records shall be preserved and maintained for the duration of employment, plus thirty years.

4. Fit testing data shall be kept for a minimum of employment plus 30 years.

**Emergency Respirators**

1. SCBA and emergency rescue equipment shall be inspected on a monthly basis, with all inspection records maintained at the jobsite and corporate safety office.

2. Original records shall be sent to the Corporate Safety Department, with copies being kept on site.

3. Medical records for each employee shall be preserved and maintained for at least the duration of employment, plus thirty years.

4. Employee exposure records shall be preserved and maintained for the duration of employment, plus 30 years.

5. Fit testing data shall be kept for a minimum of employment, plus 30 years

**Respirator Cleaning Requirements**

Respirators must be regularly cleaned and disinfected. Those issued to an employee shall be used by that employee only, and cleaned after each use, or more often if necessary.

Manual Cleaning Procedure

a. Remove canisters, filters, valves, straps, and speaking diaphragms from the face piece.

b. Wash face piece and accessories in warm, soapy water, gently scrubbing with a brush.

c. Rinse all parts thoroughly in clean running water.

d. Air dry in a clean area, or wipe dry using a clean cloth.

e. Reassemble and store properly.

An alternate cleaning method would be to use commercial cleaners, such as respirator wipes.

**Storage Requirements**

Respirators shall be stored in a convenient, clean, and sanitary location. The purpose of proper respirator storage is to ensure the respirator will function properly when in use.

1. Respirators must be stored in such a manner as to protect against dust, harmful chemicals, sunlight, excessive temperatures, and moisture.

   a. Hermetically sealed plastic bags or any plastic bags which are capable of being sealed.

   b. Plastic containers with tight-fitting lids, such as freezer containers.

   c. Cans with tight-fitting lids.

2. Pack or store the respirator so that the face piece and exhalation valves will rest in a normal position. Do not hang the respirator by its straps. This is to ensure that proper function will not be impaired by the distortion of the respirator or its straps.

3. Emergency use respirators should be stored where they are easily accessible, and their location clearly marked.

**Basic Information for Inspection and Use of Respirators**

1. Disposable Respirators

    a. Check for holes or damage in the filter.

    b. Check for strap elasticity and signs of deterioration.

    c. Check nose clip for rust or deterioration.

2. Air-Purifying Respirators

    a. Check rubber face piece for dirt, pliability of rubber, deterioration, and cracks, tears, or holes.

    b. Check straps for breaks, tears, loss of elasticity, broken attachment snaps, and proper tightness.

    c. Check valves (exhalation and inhalation) for holes warping, cracks, and dirt.

    d. Check filters, cartridges and canisters for dents, corrosion, and expiration dates. Check protection afforded by canister and its limitations.

3. Air-Supplied Respirators

    a. Check appropriate items listed under air-purifying respirators.

    b. Check hood, helmet, blouse, or suit for cracks and tears, torn seams, and abrasions. Check integrity of headgear suspensions.

    c. Check face shield for cracks, breaks, abrasions, or distortions that would interfere with vision.

    d. Check abrasive blasting protective screen for integrity and condition. Check that it fits in its designed place.

    e. Check air hoses for breaks or kinks, tightness of connectors, and manufacturer's recommendations concerning proper setting of regulators and valves.

    f. When air compressor is being used, check air-purifying elements and carbon monoxide /high-temperature alarms.

**Respirator Cartridge Change Schedule**

A cartridge change schedule must be developed for cartridges or canisters used with air purifying respirators that do not have an End of Service Life Indicator (ESLI). The purpose of this is to prevent contaminants from breaking through the respirator's sorbent cartridge(s), thereby over-exposing employees. NIOSH has approved ESLIs for only four cartridges or canisters (mercury vapor, carbon monoxide, ethylene oxide, and hydrogen sulfide). In developing a change schedule the following factors should be considered:

- Contaminants.
- Concentration.
- Frequency of use (continuously or intermittently throughout the shift).
- Temperature and humidity.
- Work rate.
- The presence of potentially interfering chemicals.

The worst case conditions should be assumed to avoid early breakthrough.

**Sources of Help**
Manufacturers
3M has an interactive "Cartridge Service Life" program that can be downloaded for free (http://www.mmm.com/market/safety/ohes2/index.html)

This program will estimate cartridge service life for 3M products against many contaminants. The program does not evaluate the service life against mixtures (multiple contaminants). Because of the complexity in evaluating mixtures, OSHA offers the following guidance:

- When the individual compounds in the mixture have similar breakthrough times (i.e., within one order of magnitude), service life of the cartridge should be established assuming the mixture stream behaves as a pure system of the most rapidly migrating component with the shortest breakthrough time (i.e., sum up the concentration of the components).
- Where the individual compounds in the mixture vary by 2 odors of magnitude or greater, the service life may be based on the contaminant with the shortest breakthrough time.

**Rule of Thumb** (*"The Occupational Environment - Its Evaluation and Control)*
- If the chemical's boiling point is >70°C and the concentration is less than 200 ppm you can expect a service life of 8 hours at a normal work rate.
- Service life is inversely proportional to work rate.
- Reducing concentration by a factor of 10 will increase service life by a factor of 5.
- Humidity above 85% will reduce service life by 50%.

# SAFETY BULLETIN BOARD

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

A. The following items are required to be posted:

1. WISHA poster (F416-081-00) (required)

2. Industrial Insurance poster (F242-191-000) (required)

3. Wage and hour laws (F700-053-000) (required)

4. Citation and Notice (as appropriate)
   If a Citation and Notice is received, it must be posted until all violations are abated.

5. Emergency Telephone Number Posted (as appropriate)

6. OSHA 300 Summary (required February 1 thru April 30 of each year)

B. Suggested Items:

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

# SAFETY DISCIPLINARY POLICY

Kitt Construction & Development, LLC believes that a safety and health Accident Prevention Program is unenforceable without some type of disciplinary policy. Our company believes that in order to maintain a safe and healthful workplace, the employees must be cognizant and aware of all company, State, and Federal safety and health regulations as they apply to the specific job duties required. The following disciplinary policy is in effect and will be applied to all safety and health violations.

The following steps will be followed unless the seriousness of the violation would dictate going directly to Step 2 or Step 3.

- **First Violation** – *Verbal warning.*
    - Discussion about work performance or behavior, and why the behavior was in violation.
    - A note will be made in the employee's personel file.

  **Second Violation** – *Written warning*.
    - Notification in writing of work or behavior deficiencies. This will be acknowledged by the employee and a copy placed in his/her personnel file.

  **Third Violation** – *Suspension or Termination*.
    - The employee is removed from the payroll for a specified number of days. This would be viewed as an action taken for improper work conduct and the number of day(s) suspension would be measured against the severity of the offense. An employee will be terminated for cause due to a gross safety violation, repetitive unsafe acts or displays of disregard for their own and/or fellow employees' safety. Gross violation(s) will be defined as life threatening situations, or sever property and personal damage.

# DISCIPLINARY MEMO

FROM: _____

TO: _____
Subcontractor or Employer

DATE: _____

SUBJECT: Notification of Violation of Safety Work Practice

---

On this date: _____

The individual, _____, was given a verbal warning to correct the following violation of safe work practice:

_____

_____

_____

No action has been taken to correct this violation of safe work practice. Your cooperation is requested to resolve this employee safety issue. Please complete the following and return this notice via mail or fax on or before this date: _____.

---

The following action has been taken to correct the above violation of safe work practice:

_____

_____

_____

The Following plan has or will be implemented to correct and/or prevent further violation of safe work practice at this jobsite:

_____

_____

_____

Signed: _____ Date: _____

# SCAFFOLD SAFETY RULES

**Purpose:**

Scaffolds are a specialized operation, therefore require specific guidelines. This section will define how scaffolds are to be addressed on Kitt Construction & Development, LLC projects.

**Policy:**

A. **Assembly:** All scaffolding must be erected, used and dismantled according to the manufacturer's recommendations **and** under the direct supervision of a competent person.

B. **Training:** Only qualified [trained] workers may work from a scaffold. Responsible subcontractors must determine if someone other than their employee requests to use their scaffold is **trained** to work from a scaffold.

C. **Modification:** Scaffolding may not be modified without written documentation that the modification has been approved by the manufacturer. Scaffold erection and dismantling procedures must be described in a fall protection work plan.

D. **Planking:** Scaffold planking and platforms must be inspected before use. Look for 15 inch maximum split, rotting, man made damage and "bows". Use only scaffold grade planking and the grade stamp must be visible. Scaffold planks must extend over the end supports not less than 6 inches or more than 12 inches.

E. **Base Plates:** Scaffolds must be supported by base plates resting on **2" x 10" x 18"** mud sills. Base plates must be nailed in two places to the mud sills. No more than 12 inches of a leveling screw may be showing.

F. **Railings:** Standard railings are required on all open sides. Safety railings may not permit opening between the mid-rail and the working surface greater than 18 inches. Standard railings are 36 to 42 inches above the working surface and capable of supporting a side load of 200 pounds.

G. **Toe boards:** Required **AT ANY HEIGHT** if objects can fall on workers or machinery below the scaffold.

H. **Working Platform:** Working platform must be at least 18 inches wide. Working platforms shall be fully decked so that the space between the platform and uprights is no more than 1 inch.

General Safety

1. Perform housekeeping several times daily to eliminate trip and other hazards.

2. Use a tag line when hoisting materials onto a scaffold.

3. The maximum working level height of a free standing scaffold may not exceed four times the minimum base dimension.

4. Inspect scaffolds each day. Check the condition of safety railing, base plates on sills, planking, ladder access, cross bracing, etc.

5. Maximum distance from the face of outriggers to the work surface shall be 3 inches.

6. Do not load scaffold planks or platforms in excess of the manufacturer's rated capacity.

7. The area below an exterior scaffold must be *clearly* barricaded to prevent unauthorized entry in the work area.

8. If tools and/or materials are piled higher than a toe board, then paneling or other means must be erected sufficient to protect workers below.

9. The front edge of a working platform not more than **14 inches from the face of the work**, unless guardrails are erected along the front edge and/or personal fall arrest systems are used. An 18-inch standard is allowed for plastering operations.

Access to Scaffolds

1. Ladder access is required on all scaffolds. Climbing the framework **WILL RESULT IN IMMEDIATE REMOVAL FROM THE JOB. DO NOT CLIMB THE FRAMEWORK.**

2. Scaffolds 10 feet in height, or greater, and having a minimum platform width of 45 inches or less in any direction, must be equipped with a standard railing.

3. Employees may not use ladders, boxes or other supports to gain extra height on a scaffold.

4. A ladder, or other means of access, is required when scaffold platforms are more than 2 feet above a point of access.

TRAINING DOCUMENTATION

**WORKING FROM FIXED OR MOBILE SCAFFOLDS**

Subcontractor:

PLEASE REVIEW THE ATTACHED WORK RULES WITH YOUR CREWS. ASK YOUR EMPLOYEES TO SIGN AND DATE THIS RECORD.

| NAME | DATE |
|---|---|
| | |
| | |
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| | |
| | |
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| | |
| | |
| | |
| | |
| | |

**USE THIS SPACE TO RECORD OTHER WORK RULES AND PROCEDURES:** _____

_____

_____

_____

**TO SUBCONTRACTOR: PROVIDE SUPERINTENDENT WITH A COPY OF THIS RECORD**

## Scaffolding Safety Checklist

| # | GENERAL REQUIREMENTS | Yes | No | Action(if no) |
|---|---|---|---|---|
| 1 | Is the scaffold being erected under the direction of a competent person? | | | |
| 2 | Is the footing sound and rigid - not set on soft ground, frozen ground (that could melt), or resting on blocks? | | | |
| 3 | Has the erection site been evaluated for hazards such as earth fills, ditches, debris, underground electric wires, unguarded openings, or conditions created by other trades? | | | |
| 4 | Are wheels / castors locked? | | | |
| 5 | Is the scaffold able to hold four times its maximum intended load? | | | |
| 6 | Are guardrails and toeboards in place on all open sides? | | | |
| 7 | Is the platform complete front to back and side to side (fully planked or decked, with no gaps greater than 1 inch)? | | | |
| 8 | Is the lumber free of cracks, splits, knots, or damage? | | | |
| 9 | Is the scaffold level? | | | |
| 10 | Have all compounds been inspected for defects such as broken welds, corroded members, and missing locks, bent or dented tubes? | | | |
| 11 | Are all braces, bearer, and clamps secured all sections pinned or appropriately secured? | | | |
| 12 | Is there a safe way to get on and off the scaffold, such as a ladder (without climbing on cross braces)? | | | |
| 13 | Is the front of the scaffold within 14 inches of the work? | | | |
| 14 | Does the scaffold meet electrical safety clearance distances? | | | |
| 15 | Is the scaffold less than 125 feet in height? | | | |
| 16 | Is the "**X**" bracing installed on the ends of the scaffold and every third set of post horizontally and every fourth vertical runner? | | | |
| 17 | Are severe weather provisions in place i.e. during high winds, rain, snow, or bad weather? | | | |
| 18 | Have all planks been properly secured to the scaffold structure to prevent them blowing off in the event of high winds? | | | |
| 19 | Where persons work under scaffold, is a 1/2 inch mesh screen provided between toeboard and guard rail or has the area below the scaffold been cordoned off? | | | |

| | | | | |
|---|---|---|---|---|
| 20 | Are tag lines available for items to be loaded on to scaffold? | | | |
| 21 | When employees are working on suspended scaffolds, are lifelines firmly anchored to an overhead structure and not to the scaffold? | | | |
| 22 | Is the scaffold over 10 feet high, (if yes) is personal fall protection available, or are guardrails in place? | | | |
| 23 | Are guardrails 38 inches high? | | | |
| 24 | Are toeboards in place and at least 4 inches high? | | | |
| 25 | Are midrails or equivalent in place? | | | |
| 26 | Does the scaffold have a height to base ratio of at least 4:1? | | | |

Job Competent Person: _____

Inspected By: _____

Signature: _____ Date:_____

# SITE SPECIFIC PLAN

**Job Hazard Analysis**

This plan is intended to provide specific information necessary for effective site implementation of the Kitt Construction & Development, LLC Safety Program. More detailed safety operating procedures are contained within that document. The Project Manager should complete this plan prior to the start of work.

Job Number: _____ Customer: _____

Project Manager: _____ Superintendent_____

Location: _____

_____ _____
Start Date End Date

**Employee Training Acknowledgement**

The signatures below document that employees received training on this site-specific safety plan:

**Employee: Date:**

Employee: _____ Date: _____

**Employee: Date:**

Employee: _____ Date: _____

**Employee: Date:**

Employee: _____ Date: _____

**Employee: Date:**

Employee: _____ Date: _____

**Employee: Date:**

Employee: _____ Date: _____

Supervisor Signature_____ Date_____

**1. Site Safety Information**

**Emergency Phone Numbers:**

| | | |
|---|---|---|
| Police | | |
| Fire | | |
| Ambulance | | |
| Safety Director | | |
| Other | | |

**Customer Safety Contacts:**

| Name | Phone Number |
|---|---|
| | |
| | |

Site Safety Representative Name: _____

Location of nearest telephone: _____

Location of 1st Aid Supplies: _____

First Aid/CPR trained individuals on Site:

| NAME | EXPIRATION DATE |
|---|---|
| | |
| | |
| | |
| | |

Medical and Drug Testing Facilities to be used:

| Treatment For: | Facility Name | Address | Phone Number |
|---|---|---|---|
| Minor Injuries: | | | |
| Serious Injuries: | | | |
| Drug Testing: | | | |

Site Drug Test Coordinator: _____
Site Evacuation alarm and assembly area: _____
_____

**Schedule for weekly Safety Meetings and Job Safety Inspections:**

| | Day | Time | Location | By Whom |
|---|---|---|---|---|
| Meeting | | | | |
| Inspection | | | | |

**2. Special Hazards**

**Check and complete all that apply:**

- ☐ **Trenching and excavation over 4 feet in depth**
  Name of Competent Person: _____

  Major Safeguards: _____
  _____
  _____
  - ☐ Training completed or verified?

- ☐ **Confined Space Entry**
  Name of Competent Person: _____

  Major Safeguards: _____
  _____
  _____
  _____
  - ☐ Training completed or verified?

- ☐ **Work in area with potential for flammable/explosive or toxic releases**
  Major Safeguards: _____
  _____
  _____
  _____
  - ☐ Training completed or verified?

- ☐ **Work at unprotected heights in excess of 6 feet above ground level**
  Name of Competent Person: _____

  Major Safeguards: (SEE FALL PROTECTION WORK PLAN)
  _____
  _____
  _____
  - ☐ Training completed or verified?

- ☐ **Potential exposure to toxic chemicals or high noise levels**
  Major Safeguards: _____
  _____
  _____
  - ☐ Training completed or verified?

- ☐ W**ork near energized overhead electrical transmission lines**
  Major Safeguards: _____
  _____
  _____

_____

☐ **Work on energized or pressurized equipment**
Describe: _____
_____
_____

Major Safeguards: _____
_____
_____
_____

☐ Training complete or verified?

☐ **Heavy or complex rigging and crane lifts**
Major Safeguards: _____
_____
_____
_____

☐ **Work with forklifts, scissor lifts or boom lifts**
Describe: _____
_____
_____

Major Safeguards: _____
_____
_____
_____

☐ Training complete or verified?

☐ **Work on energized or pressurized equipment**
Describe: _____
_____
_____

Major Safeguards: _____
_____
_____
_____

☐ Training complete or verified?

☐ **Work on ladders**
Describe: _____
_____
_____

Major Safeguards: _____
_____
_____
_____

☐ Training complete or verified?

☐ **Work with welding or cutting equipment**
Describe: _____
_____
_____

Major Safeguards: _____
_____
_____
_____

ڤ Training complete or verified?

☐ **Fire Prevention and Protection**
Describe: _____
_____
_____

Major Safeguards: _____
_____
_____
_____

ڤ Training complete or verified?

☐ **Work with power hand tools (i.e. assured grounding or GFCI)**
Describe: _____
_____
_____

Major Safeguards: _____
_____
_____

☐ Training complete or verified?

☐ **Personal Protective Equipment**
**(**Examples include respiratory protection, hard hats, safety glasses, safety boots, gloves, hearing protection etc)

Describe: _____
_____
_____

Major Safeguards: _____
_____
_____
_____

- ☐ Training complete or verified?

☐ **Other**
Describe: _____
_____
_____

Major Safeguards: _____
_____
_____
_____

- ☐ Training complete or verified?

☐ **Other**
Describe: _____
_____
_____

Major Safeguards: _____
_____
_____
_____

- ☐ Training complete or verified?

Prepared by:

_____ _____
Name Date

Reviewed and Approved by:

_____ _____
Name Date

# TRENCHING AND EXCAVATING

**SCOPE**

The purpose of this section is to define the safety requirements for working in trenches or excavations, in order to protect the safety of individuals and adjacent structures. This policy shall meet the intent of the Safety Standards for construction work WAC 296-155-650 Part N.

**GENERAL**

Prior to starting of any trenching, excavating, drilling or pile driving operations, the scope of the work and soils conditions will be reviewed by the project manager and project superintendent to ensure that adequate safety precautions are being considered.

**SOILS REPORT**

1. A copy of the Soils Report will be obtained and reviewed. Based on the Soil Engineer's Report and recommendations, appropriate safety considerations will be made.
2. During construction, if the soil conditions are not consistent with the initial Soils Report, the soils Engineer will be contacted so he may review the conditions and make necessary evaluations.
3. If the Soil Engineer's recommendations are not consistent with (Company Name) Safety and Health Manual, it will be brought to the attention of the Soil Engineer so appropriate action may be taken.
4. The Soils Report will be considered a guideline for safety purposes. The actual conditions encountered during trenching and excavating will dictate what Safety Procedures are to be used.

**PRE-PLAN FOR SAFETY**

Even with the soils report, construction drawings and trenching permits, the Safety Procedures for trenching must be carefully pre planned. There may be overhead electrical wires or underground utilities that have to be worked around or moved. Also, there is a possibility that an underground storage tan on the property is not identified.

1. Locate all known overhead and underground utilities by:
    a. Reviewing the Soils Report and Construction Plans.
    b. Contact Underground Locator Services and have them mark all utilities.
    c. If overhead or underground utilities have to be moved, contact the appropriate utility company and review the safety procedures with them.
2. Notify all workers or subcontractors involved with the work around the utilities.
    a. For employees, review the potential hazards and safety requirements in weekly safety meetings.
    b. For subcontractors, notify their office by letter or memo. Also review the safety with their workers when they come onto the jobsite.
3. When there is a doubt about the depth of a utility or how close the utility is to the mark made by the Underground Locator Services, take alternate steps
    a. Pot hole by hand to uncover the utilities.

**SHORING**

When work is to be done in a trench that is four (4) feet or deeper in hard, stable soil, trench shores (hydraulic speed shores) can be used. They are to be set and spaced as follows:

1. Hydraulic shores are to be set no more than six (6) feet apart.
2. Hydraulic shores are to extend from two (2) feet off the bottom of the trench to the top of the trench. The rams, which spread the side rails, must be positioned so they are pressing against the dirt.
3. When the trench is too deep to use just one shore per interval, the hydraulic shoring must be overlapped so the shores extend form the top to bottom in as vertical a plane as possible.
4. Hydraulic shoring is to be placed starting from the top of the trench and working downward. When removing the shoring, reverse the procedure and remove the bottom shore first and work your way to the top of the trench.

**TRENCH SHEILDS**

1. Trench shields must be designed by a qualified engineer. The plans showing the design of the trench shield must be stamped by a certified and registered engineer. A copy of the plans must be on the jobsite.
2. The trench shield is to be placed to provide protection for the workers in the trench. It must extend from the bottom of the trench to the top.
3. There must be a ladder access in and out of the trench shield. Climbing the framing supports is not considered safe.

**SLOPING**

1. Materials must be placed 2 feet or more from the edge of excavation.
2. All open excavations four (4) feet or greater in depth shall be barricaded off to prevent traffic or employees from driving or falling into the excavation. WAC 296-155-655-9.
3. For trenches up to eight (8) feet in depth in hard stable soil, in lieu or shoring, the trench can have a 3 ½ feet high vertical cut off the bottom and then the sides must be sloped back to a ¾ to one ratio.
4. For trenches up to twelve (12) feet in depth, in hard, stable soils, there can be a 3 ½ foot vertical cut off the bottom and then the sides must be sloped back at a one to one ratio.
5. For trenches over twelve (12) feet and up to twenty (20) feet in depth, in hard, stable soil, the sides must be sloped one to one ratio from the toe of the slope (bottom of the trench).
6. Trenches over 20 feet must have an engineer design the slope and shoring. The drawings must be stamped by a registered civil engineer.
7. In running soils such as sand or recompacted earth, the sloping must be at least equal to the angle of repose, but o less than the one to one ratio.

**SPECIAL SHORING**

1. Special shoring like soldier beam and lagged walls must be designed by a registered civil engineer.
2. Any other type of shoring not previously mentioned must be designed by a registered civil engineer.

**SHAFTS OR CASSIONS**

1. Shafts or caissons must be properly shored or sloped before any worker is permitted to enter them.
2. The leading edges of an excavation must be identified so workers cannot accidentally walk or drive over the edge. Guardrails or barricades can be used to warn workers.

**ACCESS**

1. Ladders spaced so that the worker does not have to travel more than twenty-five (25) feet will be used for access.
2. When the trench is less than 25 feet long, an alternate method of providing access is to slope the ends of the trench so a worker can walk out of both ends.
3. In all trenches four (4) feet or deeper, ladders are to be used for access unless the method outlined in #2 is available.
4. Walkways or bridges with guardrails must be provided where employees or equipment are required or permitted to cross over excavations or trenches.

**INSPECTION**

1. During the excavation or trenching operations, a competent person will observe the soils conditions to ensure the earth remains stable.
2. At least once a day, a qualified person will inspect the trenches or excavations to ensure it remains stable. Any evidence of cracking, sloughing or caving-in will be reported to the soils engineer. No one will be permitted to work in or near the area where there is sloughing or caving. The person doing the inspections shall have the authority to stop work if the condition is dangerous.
3. When working next to a road, street, or area where there is heavy construction traffic, the face of the cuts will be inspected frequently to ensure that the traffic vibrations do not affect the stability of the cut.

**FIFTEEN WAYS TO WORK SMARTER IN UNDERGROUND OPERATIONS**

1. Find out where utility mains involved with your work are located and where the emergency shut-offs are. Make sure all utilities are field-located before you begin your work.
2. Test and record all confined spaced for toxic and deadly gases, flammable vapors, and oxygen deficiency before entering.
3. Make sure that trenches are properly shored or sloped and that there is someone readily available who can get help. Even trenches in “solid” rock have caved in.
4. Be aware that vibrations from equipment or nearby traffic can “liquefy” soil and cause cave-ins.
5. Make certain that pipe is properly stored and handled: rolling pipe kills!
6. Know what to do and who to contact in case of an emergency. Keep emergency telephone numbers on the Safety Bulletin Board.
7. Be alert when working near heavy equipment. The operator may not always see you.
8. Wear personal protective equipment.
9. Make sure that saws and other equipment have their proper guards in place.
10. Keep electrical cords in good condition and out of water.
11. Make personally sure that the power is off before cutting into any electrical line.
12. Anticipate equipment coming into contact with overhead power lines.

13. Make personally sure that gas mains have been shut off, or located and adequately protected, before working near them.
14. Be sure that your trench has the proper emergency exits at proper spacing. Be sure to use ladders for access.

*THINK! NO ONE KNOWS THE HAZARDS OF YOUR JOB BETTER THAN YOU*

# WALK-AROUND SAFETY INSPECTIONS

Walk-around safety inspections will be conducted at the beginning of each job, and at least weekly thereafter.

- The inspections will be conducted jointly by one member of management and one employee.
- The inspections will be documented and the documentation will be made available for inspection by representatives of the Department of Labor and Industries.
- The records of the walk-around inspections will be maintained until the completion of the job.

# WELDING AND CUTTING SAFETY RULES

Kitt Construction & Development, LLC in accordance with State and federal regulations has implemented a welding and cutting safety program that addresses gas and arc welding.

**Gas Welding**

This set of guidelines was set in accordance with WAC 296-155-400.

A. Transportation of cylinders:
    a. Keep valve protection caps in place and secure at all times.
    b. Do not intentionally strike, drop or allow cylinders to rub or strike each other.
    c. Secure cylinders in the vertical position during transportation.
    d. Transporting more than 1000 pounds of compressed gas (this includes the rack *about 7 150lb bottles*) requires the use of a CDL HAZMAT endorsed driver.
B. Secure cylinders to avoid tipping during use.
C. Compressed gas cylinders shall be secured in an upright position at all times.
D. Oxygen cylinders shall be separated from fuel-gas cylinders or combustible materials by a minimum of 20 feet or separated by an approved firewall.
E. Keep cylinders at a safe distance from welding and cutting operations to avoid ignition from sparks, hot slag, or flame.
F. Keep cylinders away from electrical hazards to avoid becoming part of an electrical circuit.
G. Fuel-gas cylinders must be stored and transported with the valve up and capped.
H. Do not use damaged or defective cylinders.
I. Replace any part that does not work properly. Adjustments made to such equipment should be noted to all possible users. Only adjustments that are specifically approved by the manufacturer should be made.
J. If at anytime, the worker is unsure on how to use the equipment they should seek help from their supervisor. Do not attempt to operate any piece of unfamiliar equipment as it could result in SERIOUS injury.

**Arc Welding**

This set of guidelines was set in accordance with WAC 296-155-405.

A. Use only approved manual electrode holders.
B. Any parts that pass through the manual portion of the welder or cutter shall be properly insulated and grounded.
C. All cables shall be properly insulated and grounded.
D. If splicing cables, ensure good electrical conductivity and proper insulation over splice.
E. Ensure ground return cable to meet or exceed the specified maximum output capacity of the welding or cutting unit that it services.
F. Do not expose electrodes to water; to do so will expose the welder to electric shock.
G. When leaving immediate work area for long periods of time, turn off the power supply to all welding equipment.
H. When work with welder is completed, remove electrode from the holder.

Protective Clothing

The following section is compiled of known uses and hazards of welding and cutting operations at Kitt Construction & Development, LLC refer to WAC 296-155-407 for a more complete list of requirements.

A. All welders shall wear flameproof gauntlet gloves.
B. Flameproof leather apron may be desired for further protection from heat and flames.
C. An approved head protection device (such as a welding hood) must be worn throughout operation of welding/ cutting equipment.
D. Keep outer clothing free from grease or oil to avoid combustibility.

Fire Prevention

The following section is compiled of known uses and hazards of welding and cutting operations refer to WAC 296-155-410 for a more complete list of requirements.

A. It is recommended to take all detachable parts away from actual machinery to work on, to eliminate fire hazards involved with attached machinery.
B. Do not weld cut or heat anywhere that a flammable compound is present or is capable of being present.
C. Fire extinguishing equipment shall be readily available as provided by the company.

Ventilation

The following section is compiled of known uses and hazards of welding and cutting operations refer to WAC 296-155-415 for a more complete list of requirements.

A. Contaminated air exhausted from a workplace shall be discharged into the open air or otherwise clear of the source of intake air.
B. All replacement air shall be clean and respirable.

# WORK CREW SAFETY MEETINGS

We believe that hard work and perseverance are required for the prevention of injuries and illnesses, with the crew leader being the key to a successful result.

A. Purpose: To assist in the detection and elimination of unsafe conditions and work procedures.

B. Procedures:
The following guidelines will be followed:

a. These meetings are held at the beginning of each job and at least weekly thereafter, according to the various circumstances involved or when necessary to clear working procedures. No set pattern will suit all cases. It is important that the crew leader talk daily on injury prevention and immediately upon witnessing an unsafe act.
b. The attendance and subjects discussed will be documented and maintained on file for one year.
c. Copies of the minutes will be made available to the employees by posting or other means.

C. Scope of Activities:
*(certain employees, as may be designated by their supervisors, will assist)*
1. Conduct in-house safety inspections with supervisor concerned.
2. Investigate incidents to uncover trends.
3. Review incident reports to determine means or elimination.
4. Accept and evaluate employee suggestions.
5. Review job procedures and recommend improvements (Job Safety Analysis Form is available in the Appendix)
6. Monitor the safety program effectiveness.
7. Promote and publicize safety.

D. Documentation: The sample form in the meeting minutes is available to assist in documenting activities of crew/leader meetings. There is also a Safety Meeting Notice form that you can print out and copy to announce your next safety meeting.

# SAFETY MEETING NOTICE

DATE: _____

TIME: _____

PLACE:

_____

_____

# SAFTEY MEETING MINUTES

**CREW SAFETY MEETING**

| Company/Contractor Name | | Address |
|---|---|---|
| Date | Time | # of employees attending |
| Subjects discussed | | |

Minutes:

Crew Leader Comments:

Minutes taken by_____

# CONSTRUCTION SAFETY MEETING SUGGESTIONS

*(The crew leader's guide)*

Thirteen good topics for construction safety meetings:

1. Fall protection/fall prevention

2. Personal protective equipment
    a. Hard hats
    b. Eye protection
    c. Hearing protection
    d. Footwear
    e. Safety harness/belts
    f. Respiratory protection

3. Housekeeping

4. Tool inspection

5. Emergency procedures

6. Electrical safety

7. Ladder safety

8. Scaffold safety

9. Fire prevention/fire extinguishers

10. Reporting injuries and unsafe conditions

11. Confined spaces

12. Lock-out procedures

13. Heat Stress

*Training programs, educational materials, films, videos and posters are available from the Department of Labor and Industries – Safety webpage.*

# HOW TO HOLD A GOOD SAFETY MEETING

1. Be certain everyone knows the time and place of the next meeting. You may use the sample form on the next page if you wish.

2. Insist that everyone attend. Before the next meeting, remind those who were late or failed to attend that **attendance is not optional**.

3. Pick an appropriate topic. If you can't think of an appropriate topic, use one from the attached list (these usually apply to all projects).

4. Start the meeting on time.

5. Don't waste time – give the meeting your undivided attention.

6. Discuss the topic you have chosen and prepared. Don't wait until the meeting to choose your topic.

7. Use handouts or posters to illustrate your topic.

8. Discuss current job site safety events, injuries and close calls.

9. Encourage employees to discuss safety problems as they arise. Do not save safety concerns for the meeting. Allow some time for employee questions or input at the end of the meeting.

10. Invite managers or owners to speak. Ask fellow employees to speak on a safety topic.

11. If you prevented *one* injury, it is time well spent. Your topic may be one that some employees have heard many times, but there may be one person who is new or has never been told of the safety requirement for that topic. Repeating topics several times during the course of a project is beneficial as long as it applies to the work being done.

12. Follow up on employee concerns or questions and get back to them with the answer before the next meeting.

13. Be certain to document the attendance and the topics discussed.

# WORK PLACE VIOLENCE POLICY

**THERE WILL BE ZERO TOLERANCE OF ACTS OR THREATS OF VIOLENCE IN OUR WORKPLACE. KITT CONSTRUCTION & DEVELOPMENT, LLC IS COMMITTED TO MAINTAINING A WORKPLACE THAT IS FREE FROM VIOLENCE OR THREAT OF VIOLENCE.**

All employees have the right to expect a place of employment that is free from behavior that can be considered harassing, abusive, disorderly, or disruptive. Any violent behavior or behavior that creates a climate of violence, hostility, or intimidation will not be tolerated, regardless of origin. Proactive measures will be taken to minimize the potential for violent acts. Each and every act or threat of violence will result in an immediate and firm response that could, depending on the severity of the incident and/or other relevant considerations, include termination from employment with Kitt Construction & Development, LLC.

This policy includes, but is not limited to, the following behaviors and situations:

- Violent or threatening physical contact (including fights, pushing, and physical intimidation.)
- Direct or indirect threats
- Threatening, abusive or harassing phone calls
- Possession of a weapon or company property
- Destructive or sabotaging actions against company or employees' personal property
- Stalking
- Violation of a restraining order
- Threatening acts or abusive language that leads to tension within the work environment

Any person who makes substantial threats, exhibits threatening behavior, or engages in violent acts on Kitt Construction & Development, LLC property shall be removed from the premises as quickly as safety permits, and shall remain off Kitt Construction & Development, LLC premises pending the outcome of an investigation. No existing Kitt Construction & Development, LLC policy, practice or procedure should be interpreted to prohibit decisions designed to prevent a threat from being carried out, a violent act from occurring or a life-threatening situation from developing.

**Reporting Procedure:**
Reporting procedures have been developed to encourage early reporting, support and stress reduction for employees as well as the prevention of violence. Any employee can report concerns or incidents to his or her immediate supervisor, a member of the Human Resources Staff, or any member of management.

Kitt Construction & Development, LLC will initiate an appropriate response. This response may include, but is not limited to, termination of employment and/or criminal prosecution of the person(s) involved.

All employees who obtain a protective restraining order, which lists Kitt Construction & Development, LLC premises as being a protected area, must provide to their immediate supervisor a copy of any temporary or permanent protective or restraining order.

Kitt Construction & Development, LLC understands the sensitivity of the information requested and has developed confidentiality procedures, which recognizes and respects the privacy of the employee(s).

**Written Silica Exposure Control Program**

## 1.0 Applicability and Scope

### 1.1 Applicability

This Written Exposure Control Plan (Plan) applies to **Kitt Construction & Development, LLC** personnel who are potentially exposed to airborne concentrations of respirable crystalline silica (silica) because of their work activities or proximity to the work locations where airborne silica is being emitted. This Plan also applies to **Kitt Construction & Development, LLC** superintendents, foremen, or safety personnel who may be responsible for overseeing a subcontractor's operations that have the potential to expose personnel to airborne concentrations of silica at or above regulatory and industry action levels and exposure limits.

### 1.2 Scope

This Plan describes the hazards associated with projects involving potential exposure to airborne concentrations of silica and the issues to be addressed during these projects. These projects include, but are not limited to:

- Use of stationary masonry saws used to cut concrete, tile, concrete masonry block, sheet rock, gypsum fiber roof board, or any other product containing quartz.
- Handheld power saws used to cut concrete, asphalt, concrete masonry block, sheet rock, gypsum fiber roof board, or any other product containing quartz.
- Rig-mounted or free standing core saws or drills (including impact and rotary hammer drills) used to penetrate concrete, concrete masonry block, sheet rock, gypsum fiber roof board, or any other structural component or product containing quartz.
- Jackhammers and handheld powered chipping tools used to demolish or modify concrete, concrete masonry block, or any other structural component or product containing quartz.
- Handheld grinders or cut-off wheels used for mortar removal or cutting/grinding of concrete, concrete masonry block, sheet rock, gypsum fiber roof board, or any other structural component or product containing quartz.
- Installation or demolition of sheet rock, including mudding, taping, texturizing activities with quartz containing materials.
- Hand or power tool sanding of painted surfaces. Current latex paint products contain quartz and the painted substrate (sheet rock, concrete masonry block, concrete) contains quartz.
- All housekeeping operations associated with the activities described above.

**Kitt Construction & Development, LLC** employees who work in proximity to silica-related operations must be aware of safe work practices and take all necessary precautions associated with avoiding and minimizing airborne silica exposure.

## 2.0 Regulatory Review

Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1153: Respirable Crystalline Silica (Construction Industry) and 29 CFR 1910.1053: Respirable Crystalline Silica (General Industry), contain regulatory requirements specific to respirable crystalline silica. This Written Exposure Control Plan is developed in accordance with the requirements in 29 CFR 1926.1153(g).

## 3.0 Project Planning

### 3.1 Training Requirements

**Kitt Construction & Development, LLC** employees who anticipate working on projects where they could be exposed to airborne silica will be provided training in silica hazards in accordance the **Kitt Construction & Development, LLC** program established to comply with the hazard communication standard (29 CFR 1910.1200). Each employee will have access to labels on containers of crystalline silica and safety data sheets, and be provided information on the health hazards of silica including cancer, lung effects, immune system effects, and kidney effects. In addition, **Kitt Construction & Development, LLC** employees will be provided training and information regarding specific activities identified in this Plan that could result in airborne silica exposure, and the specific engineering controls, work practices and respiratory protection requirements to mitigate the potential airborne silica exposures. This training will provide a discussion of silica hazards, initial exposure determination either by complying with 29 CFR 1926.1153 Table 1 requirements or air monitoring, specific engineering and work practice control measures, personal protective equipment (PPE), and medical surveillance requirements. The training will also identify the **Kitt Construction & Development, LLC** competent person for silica exposure identification and determination of control requirements. All **Kitt Construction & Development, LLC** employees will be provided with access to a copy of 29 CFR 1910.1153 and be trained on the contents of 29 CFR 1926.1153.

### 3.2 Medical Surveillance Requirements

**Kitt Construction & Development, LLC** shall institute medical surveillance for any employees required by this Plan to where a respirator 30 or more days per year. Initial medical surveillance consists of medical and work history with emphasis on: past, present, and anticipated exposure to silica, dust and other agents affecting the respiratory system; any history of respiratory system dysfunction, including signs and symptoms of respiratory disease (e.g., shortness of breath, cough, wheezing); history of tuberculosis; and smoking status and history; a physical examination with emphasis on the respiratory system; chest X-ray (a single posterio-anterior radiographic projection or radiograph of the chest at full inspiration recorded on either film (no less than 14 x 17 inches and no more than 16 x 17 inches) or digital radiography systems), interpreted and classified according to the International Labour Office (ILO) International Classification of Radiographs of Pneumoconiosis by a NIOSH-certified B Reader; a pulmonary function test to include forced vital capacity (FVC) and forced expiratory volume in one second (FEV1) and FEV1/FVC ratio, administered by a spirometry technician with a current certificate from a NIOSH approved spirometry course; testing for latent tuberculosis infection; and any other tests deemed appropriate by the Occupational Medicine Provider. Subcontractors are responsible for implementing a medical surveillance program for their employees.

### 2.3 Competent Person Requirements

**Kitt Construction & Development, LLC** shall identify a competent person to inspect and oversee all activities with potential airborne silica exposure. Subcontractors working on projects within the scope of this Program shall appoint a competent person capable of executing the duties described herein. The competent person must have training in the inspection of work areas and equipment and in the determination of safe working conditions. This person shall have a working knowledge of the 1926.1153 standards, shall be capable of identifying airborne silica hazards, shall determine the need for initial and additional exposure monitoring, shall recommend and implement engineering and work practice controls, shall establish levels of PPE, and shall have the authority to take action to eliminate hazards and correct incidences of noncompliance.

## 2.4 Planning Activities

Projects where anticipated activities involve concrete cutting, grinding, sandblasting, drilling, coring, or other abrasive operations are treated as potential sources for airborne silica exposure. Additionally, existing structures and materials such as sheetrock, any painted surfaces with low volatile organic compounds, tile, brick, or some insulation products may contain silica. Likewise, new material installation may involve silica-containing mortar, paints, or insulation. Where process knowledge indicates the presence of silica, **Kitt Construction & Development, LLC** will either implement all controls required by 1926.1153 Table 1- Exposure Control Methods for Selected Construction Operations or conduct an initial determination in accordance with 29 CFR 1926.1153(d)(2).

## 3.0 Project Execution

## 3.1 Safe Work Practices

The requirements of this section are to be followed by **Kitt Construction & Development, LLC** employees, who may be exposed to airborne concentrations of silica at or above the regulatory limits.

### 3.1.1 Exposure Assessment

**Kitt Construction & Development, LLC** will either comply will with and implement all controls required by 1926.1153 Table 1- Exposure Control Methods for Selected Construction Operations or conduct an initial determination in accordance with 29 CFR 1926.1153(d)(2).

- An exposure assessment is required when employees may be exposed to airborne silica at or above the action level in order to determine the extent to which employees are exposed and the appropriate exposure controls required.
- An initial determination of exposure shall be made at the beginning of operations. The determination shall consist of the collection of personal air samples representative of a full shift including at least one sample for each job classification in each work area, either for each shift, or for the shift with the highest exposure level.
- During the initial determination, until such time that actual airborne concentrations are determined, personnel shall be protected by respiratory protection based on task- specific anticipated airborne concentrations of silica as illustrated in Table 2 below:
- During the initial determination, and in addition to the levels of respiratory protection required, personnel shall be provided with protective clothing and equipment, hygiene facilities, and training.
- Whenever a change in equipment, process, controls, or personnel occurs, or a new task has been initiated, an additional exposure assessment is required.
- When an assessment determines that exposure has occurred above the action level but below the PEL, additional monitoring shall be required at least every 6 months. Additional monitoring shall continue until such time that the monitoring results fall below the action level on two separate occasions at least 7 days apart.
- When monitoring yields results above the PEL, then quarterly monitoring is required. In addition, the quarterly monitoring may be suspended when additional monitoring results fall below the action level on two separate occasions at least 7 days apart.

- Where the competent person can clearly demonstrate, in the absence of air monitoring data, that a work activity will not create airborne silica concentrations in excess of the action level, then air monitoring may be unwarranted. Where a negative initial determination is reached without air monitoring, the competent person must develop a written explanation as to why exposures are not expected to exceed the action level.

**3.1.2 Communication of Hazards**

- Each employee shall be provided training and demonstrate knowledge and understanding of the following:
    - Health hazards associated with exposure to respirable crystalline silica
    - Specific tasks that could result in exposure to respirable crystalline silica
    - Specific measures that are required to protect employees from exposure to respirable crystalline silica, including engineering controls, work practices, and required use of respiratory protection
    - The contents of the 29 CFR 1926.1153
    - The identity of the competent person
    - Purpose and description of the medical surveillance program
- A written compliance program shall be made available to all affected employees.
- In addition, notification to owners, contractors, and other personnel working in the area shall be made.

**3.1.3 Control Methods**

- Engineering and work practice controls, including administrative controls, shall be implemented to reduce and maintain employee exposure to silica at or below the PEL, to the extent that such controls are feasible.
- Where all feasible engineering and work practice controls that can be instituted are not sufficient to reduce employee exposure to or below the PEL, such controls shall be used, nonetheless, to reduce employee exposure to the lowest feasible level (and in conjunction with respiratory protection).
- Respiratory protection shall be selected based on guidance in 1926.1153 Table 1 or based on a Certified Industrial Hygienist's or competent person's assessment of the potential airborne exposure that may be created by the means and methods of work (high energy operations with high airborne dust generation or low energy operations with low dust generation).
- When using mechanical ventilation to control exposure, regularly evaluate the system's ability to effectively control exposure.
- If administrative controls are used to limit exposure, establish and implement a job rotation schedule that includes employee identification as well as the duration and exposure levels at each job or work station where each affected employee is located.
- A written compliance program shall be established and implemented prior to the start of operations within the scope of this Written Compliance Plan. The written program shall outline the plans for maintaining employee exposure below the PEL.

- Maintain all surfaces as free as possible from accumulations of silica. Select methods for cleaning surfaces and floors that minimize the likelihood of silica becoming airborne (such as using a HEPA vacuum).
- If vacuuming is the method selected, specialized vacuums with HEPA filtration are required. Methods to use and empty vacuums in a manner that minimizes the reentry of silica into the workplace shall be described and used. Use of household vacuums with HEPA filters are not allowed at any time for the collection of dust or debris that contains silica.
- Never use compressed air to remove silica from any surface unless it is used in conjunction with a ventilation system designed to capture the airborne dust created while using the compressed air.
- Employees shall not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in any areas where exposure to silica is above the PEL (in other words, regulated areas).
- Do not allow employees to leave the workplace wearing any protective clothing or equipment that is required to be worn during their work shift without HEPA vacuum removal of dust.
- Where feasible, install shower facilities and require employees who work in regulated areas to shower at the end of their work shift. Also provide an adequate supply of cleaning agents and clean towels.
- Provide hand washing facilities for use by employees working in regulated areas. Furthermore, require employees to wash their hands and face at the end of the work shift and prior to eating or entering eating facilities, drinking, smoking, or applying cosmetics.
- Eating facilities or areas shall be provided for employees working in regulated areas. These facilities shall be maintained free of silica contamination and shall be readily accessible to those employees.

### 3.2.5 Personal Protective Equipment (PPE)

Respiratory protection must be used for the following conditions:

- During periods when employee exposure to airborne silica exceeds the PEL
- For work operations where engineering and work-practice controls are not sufficient to reduce employee exposure to or below the PEL
- During periods when an employee requests a respirator
- During periods when respirators are required to provide interim protection while conducting initial exposure assessments
- Powered air-purifying respirators (PAPR) shall be provided to employees who request such a respirator to use where it will provide adequate protection.
- Employees shall be provided, at no cost, protective work clothing and equipment including cotton coveralls or similar full-body clothing, gloves, hats, shoes or disposable shoe coverlets, face shields, vented goggles, or other appropriate PPE.

# Respirable Crystalline Silica
## 29 CFR 1926.1153 Table 1

| Equipment / Task | Location of Use | Engineering and Work Practice Control Methods | Respiratory Protection Requirements | |
|---|---|---|---|---|
| | | | ≤ 4 hours / shift | > 4 hours / shift |
| (i) Stationary masonry saws  | | B + Manual | | |
| | Electric | | | |
| | Gasoline | Plus STOP + CO + Manual: - Ventilate - CO Monitor - Prevent Fire (Gasoline) | | |
| (ii) Handheld power saws (any blade diameter)  | | S or B + Manual | | |
| | Electric | Plus | | APF 10 |
| | Gasoline | Plus STOP + CO + Manual: - Ventilate - CO Monitor - Prevent Fire (Gasoline) | | |
| (iii) Handheld power saws for cutting fiber-cement board  | | 99% + Manual | | |
| | | STOP: - Not listed as table 1 activity - Respirator with air sampling | | JHA Required |
| (iv) walk-behind saws  | | B + Manual | | |
| | Electric | Plus | | APF 10 |
| | Gasoline | Plus STOP + CO + Manual: - Ventilate - CO Monitor - Prevent Fire (Gasoline) | | |
| (vi) rig-mounted core saws or drills  | | S + Manual | | |
| | Electric | | | |
| | Gasoline | Plus STOP + CO + Manual: - Ventilate - CO Monitor - Prevent Fire (Gasoline) | | |

Outdoors

Indoors or enclosed area

B: Provide an integrated water delivery system that continuously feeds water to equipment Blade | cutting Surface | point if Impact* (* Integrated not required)

Manual: Operate and maintain equipment in accordance with manual

99%: Equipped with commercially available dust collection system (DCS) with 99% or greater efficient filter, plus (+) filter cleaning mechanism (++) filter cleaning mechanism or cyclonic pre-seperator

HEPA: A DCS with a filter at least 99.97% efficient in removing monodispersed particles of 0.3 micrometers in diameter

Minimize accumulation of visible airborne dust by providing sufficient ventilation

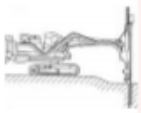
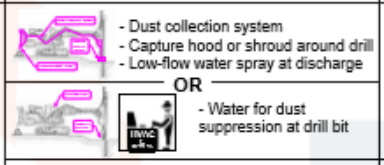
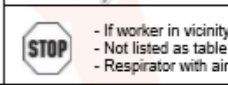
APF 10: Assigned Protection Factor

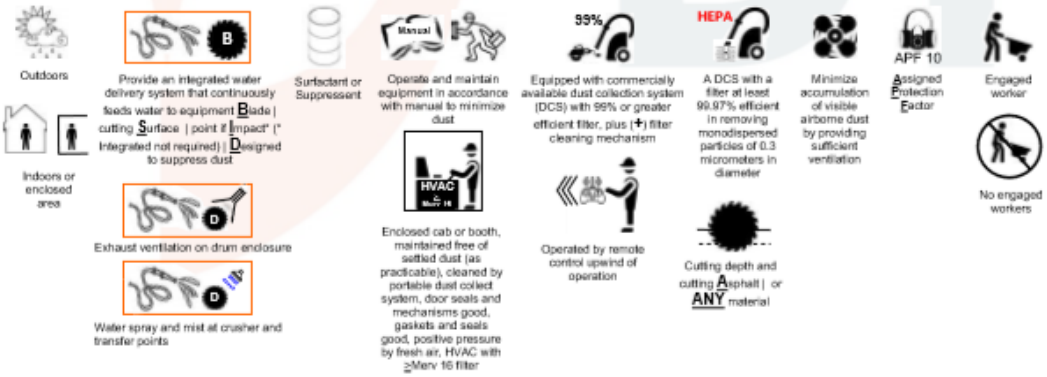
DCS CFM = 25 x B: Dust collection system (DCS) requires CFM rating to equal or exceed wheel diameter x 25

DIMEO

| Equipment / Task | Location of Use | Engineering and Work Practice Control Methods | Respiratory Protection Requirements | |
|---|---|---|---|---|
| | | | ≤ 4 hours / shift | > 4 hours / shift |
| (vii) handheld and stand-mounted drills (including impact and rotary hammer drills)  | | 99% Manual | | |
| | | Plus HEPA To clean drill holes | | |
| (x) Jackhammers and heldheld powered chipping tools  | | Manual | | |
| | | Plus | | APF 10 |
| | | 99% Manual | | |
| | | Plus | | APF 10 |
| (xi) Handheld grinders for mortar removal  | | 99% DCS CFM = 25 x D Manual | APF 10 | ≥ APF 25 |
| | | STOP - Not listed as table 1 activity - Respirator with air sampling | JHA Required | |
| (xii) Handheld grinders for uses other than mortar removal | | S Manual | | |
| | | STOP - Not listed as table 1 activity - Respirator with air sampling | JHA Required | |
| | | 99% DCS CFM = 25 x D Manual | | |
|  | | Plus | | APF 10 |
| (xiii) Walk-behind milling machines and floor grinders  | | S Manual | | |
| | | OR | | |
| | | 99% Manual | | |
| | | Plus HEPA Use to remove loose dust in-between passes | | |

Note: For each employee engaged in a task identified on Table 1, the employer shall fully and properly implement the engineering controls, work practices, and respiratory protection specified for the task on Table 1, unless the employer assesses and limits the exposure of the employee to respirable crystalline silica in accordance with paragraph 29 CFR 1926.1153(d).

| Equipment / Task | Location of Use | Engineering and Work Practice Control Methods | Respiratory Protection Requirements | |
|---|---|---|---|---|
| | | | ≤ 4 hours / shift | > 4 hours / shift |
| (v) Drivable saw  |  |   |  | |
| |  |   | JHA Required | |
| (viii) Dowel drilling rigs fro concrete  |  |   |   | |
| |  |   | JHA Required | |
| (ix) Vehicle-mounted drilling rigs for rock and concrete  |  |   |  | |
| | |   | JHA Required | |
| (xiv) small drivable milling machines (less than half-lane)  |  |   |  | |
| |  |   | JHA Required | |



| Equipment / Task | Location of Use | Engineering and Work Practice Control Methods | Respiratory Protection Requirements | |
|---|---|---|---|---|
| | | | ≤ 4 hours / shift | > 4 hours / shift |
| (xv) Large drivable milling machines (half-lane and larger)  | | A Depth - no limit OR Any Depth ≤ 4" <br> D Operate Dust Emissions <br> OR <br> D Operate Dust Emissions | | |
| (xvi) Crushing machines  | | D Manual <br> Plus HVAC OR <br> STOP - Not listed as table 1 activity - Respirator with air sampling | | JHA Required |
| (xvii) Heavy equipment and utility vehicles (e.g. bobcat, TLB) used to abrade or fracture silica-containing materials SCM (e.g. hoe-ramming, rock ripping) or used during demolition activities involving SCM.  | | HVAC Manual <br> Note: The use of "dry" operating rotary cutting head accessory will require first run study including air sampling and off-shift work with Dust Boss(es) | | |
| | | and/or Operate Dust Emissions | | |
| | | STOP DANGER CARBON MONOXIDE - CO monitoring - Not listed as table 1 activity - Respirator with air sampling | | JHA Required |
| (xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including (xvii) equipment / tasks  | | HVAC Manual <br> OR | | |
| | | and/or Operate Dust Emissions | | |
| | | STOP DANGER CARBON MONOXIDE - CO monitoring - Not listed as table 1 activity - Respirator with air sampling | | JHA Required |

Note: For each employee engaged in a task identified on Table 1, the employer shall fully and properly implement the engineering controls, work practices, and respiratory protection specified for the task on Table 1, unless the employer assesses and limits the exposure of the employee to respirable crystalline silica in accordance with paragraph 29 CFR 1926.1153(d).

Occupational Health Internship Program

# Silica Checklist

☐ Competent person on site?

Name: _____
Job title: _____

☐ Do you see dust in the air?

☐ Tasks being performed:

- ▫ Abrasive sandblasting
- ▫ Bushhammering
- ▫ Cutting/sawing
- ▫ Demolishing/disturbing
- ▫ Drilling
- ▫ Earthmoving
- ▫ Grinding
- ▫ Jackhammering
- ▫ Milling
- ▫ Mixing
- ▫ Polishing
- ▫ Roofing
- ▫ Sacking/patching
- ▫ Sanding
- ▫ Scarifying
- ▫ Sweeping/cleaning

☐ Is there a written silica exposure control plan in place?

☐ Controls being used:

- ▫ Water delivery system
- ▫ Vacuum dust collection

☐ Are workers trained on silica hazards and controls?

☐ PPE:

☐ Dust mask ☐ Half mask ☐ Full mask

**Assigned Protect Factor (APF)**
(requires medical clearance and fit testing)

| APF 10 | APF 10 | APF 50 |
|---|---|---|
| Dust Mask | Half-face | Full-face |

***This resource is intended as a simplified list. Please see https://www.osha.gov/ for a complete list of *Table 1***

| Equipment/task | Engineering/work practice control methods | Minimum assigned protection factor (APF) | |
|---|---|---|---|
| | | ≤ 4 hrs/shift | > 4 hrs/shift |
| **Stationary masonry saws** | Integrated water delivery | None | None |
| **Handheld power saws** (any blade diameter) | Integrated water delivery<br>**Outdoors**<br>**Indoors/Enclosed Area** | None<br>APF 10 | APF 10<br>APF 10 |
| **Handheld power saws for cement board cutting** (diameter 8 inches or less) | Dust collection system (99%)<br>**Outdoors** | None | None |
| **Walk-behind saws** | Integrated water delivery<br>**Outdoors**<br>**Indoors/Enclosed Area** | None<br>APF 10 | None<br>APF 10 |

| | | | |
|---|---|---|---|
| **Drivable saws** | Integrated water delivery<br>**Outdoors** | None | None |
| **Rig-mounted core saws or drills** | Integrated water delivery | None | None |
| **Handheld and stand-mounted drills** (impact and rotary hammer) | Dust collection system (99%) or shroud<br>Use HEPA filter when cleaning holes | None | None |
| **Dowell drilling rigs for concrete** | Dust collection system (99%) | APF 10 | APF 10 |
| **Vehicle-mounted drilling rigs for rock/concrete** | Dust collection system with capture hood/shroud and low-flow water spray<br><br>Enclosed cab with water on drill bit | None | None |
| **Jackhammers and handheld powered chipping tools** | Integrated water delivery<br>Dust collection system (99%) or shroud<br>**Outdoors**<br>**Indoors/Enclosed Area** | None<br>APF 10 | APF 10<br>APF 10 |
| **Handheld grinders for mortar removal** (tuckpointing) | Dust collection system (99%) | APF 10 | APF 25 |
| **Handheld grinders not for mortar removal** | Integrated water delivery<br>**Outdoors**<br><br>Dust collection system<br>**Outdoors**<br>**Indoors/Enclosed Area** | None<br><br>None<br>None | None<br><br>None<br>APF 10 |
| **Walk-behind milling machines and floor grinder** | Integrated water delivery<br>Dust collection system (99%)<br>Use HEPA filter when indoors | None | None |
| **Small or large drivable milling machine** | Supplemental water spray<br>Exhaust ventilation on drum | None | None |
| **Crushing machines** | Supplemental water spray or mist<br>Ventilated booth for operator | None | None |
| **Heavy equipment used for: Demolition, fracturing, grading or excavation** | Operate equipment from enclosed cab<br><br>Apply water as necessary | None | None |

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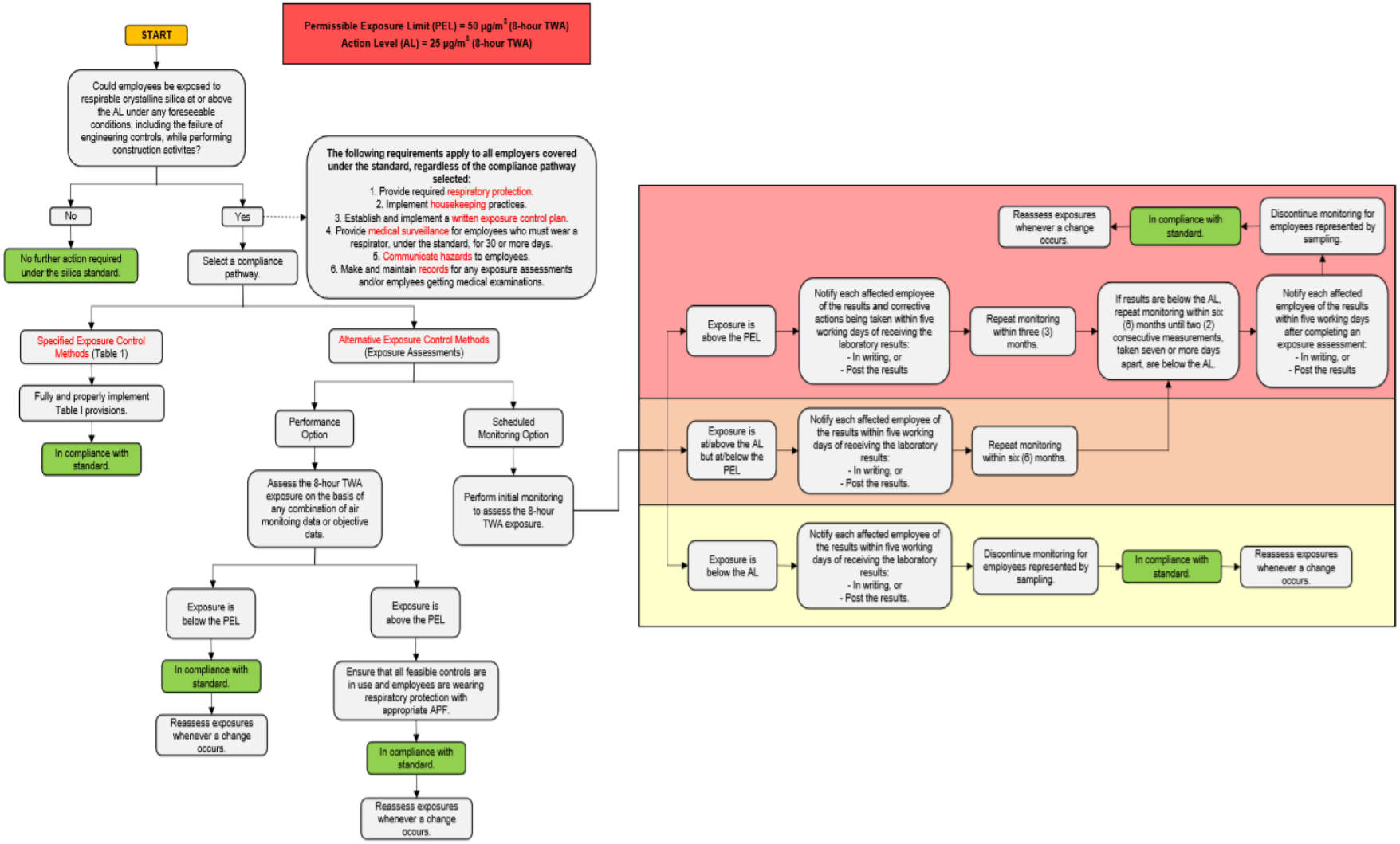
# RESPIRABLE CRYSTALLINE SILICA (RCS) COMPLIANCE FLOWCHART



# Silica Monitoring Form

| Instructions |
|---|
| **1.** Use this form to collect information on employee(s) exposure from **one** product or material, or process, task, or activity. The information will be used for recordkeeping purposes and includes information requested in paragraphs (j)(1)(ii), air monitoring data, and (j)(2)(ii), objective data, of the construction standard (29 CFR 1926.1153). |
| **2.** Exposure assessment must reflect the exposures of employees on each shift, for each job classification, in each work area. |
| **3.** Reassess exposures whenever a change in the production, process, control equipment, personnel, or work practices may reasonably be expected to result in new or additional exposures at or above the action level, or when the employer has any reason to believe that new or additional exposures at or above the action level have occurred. |

| Purpose | |
|---|---|
| ☐ Air Monitoring Data<br>☐ Initial ☐ Re-sampling | ☐ Objective Data, Source:_____<br>☐ Reassessment, Change in: _____ |

| Date | Contractor | Region | Site |
|---|---|---|---|
| | | ☐ Northeast (NE) ☐ Southeast (SE)<br>☐ Southwest (SW) ☐ West (W)<br>☐ Midwest (MW) | |

| Employees Represented by Monitoring | | | | |
|---|---|---|---|---|
| Name | ID | Job Class | PPE Used | Monitored (Y/N) |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| Job Description |
|---|
| |

| Type of Work Being Performed | | | |
|---|---|---|---|
| Task | Time Performed (%) | Task | Time Performed (%) |
| ☐ Cutting (C) | ☐ <25 ☐ 25-50<br>☐ 50-75 ☐ >75 | ☐ Mixing Concrete (MC) | ☐ <25 ☐ 25-50<br>☐ 50-75 ☐ >75 |
| ☐ Grinding (G) | ☐ <25 ☐ 25-50<br>☐ 50-75 ☐ >75 | ☐ Mixing Mortar (MM) | ☐ <25 ☐ 25-50<br>☐ 50-75 ☐ >75 |
| ☐ Drilling (D) | ☐ <25 ☐ 25-50<br>☐ 50-75 ☐ >75 | ☐ Terrazzo Work (TW) | ☐ <25 ☐ 25-50<br>☐ 50-75 ☐ >75 |
| ☐ Other: | | | ☐ <25 ☐ 25-50<br>☐ 50-75 ☐ >75 |

| Base Material | Silica Content of Base Material |
|---|---|
| ☐ Block (BL) ☐ Other:<br>☐ Brick (BR)<br>☐ Concrete (C) | ☐ From bulk sample _____<br>☐ From estimate (MSDS or list) _____<br>☐ Unknown |

| Tool(s) Used | PPE Used | |
|---|---|---|
| Make:_____<br>Model: _____ | ☐ Dust Mask (DM)<br>☐ Full Face (FF)<br>☐ Glove (G) | ☐ Half Face (HF)<br>☐ Protective Clothing (PC)<br>☐ Other: |

# Silica Monitoring Form

| Control Method(s) | | |
|---|---|---|
| ☐ None (N) | | |
| ☐ Dry (D) | | |
| ☐ Natural Ventilation (NV) | | |
| ☐ General Mechanical (GM) | | |
| ☐ Local Exhaust Ventilation - with HEPA vacuum (LE-HEPA) | | |
| ☐ Local Exhaust Ventilation - with shop vac or other vacuum (LE-OTHER) | | |
| ☐ Wet Method - Continuous Drip (WM-CD) | | |
| ☐ Wet Method - Continuous Spray (WM-CS) | | |
| ☐ Wet Method - Non-continuous Drip (WM-NCD) Frequency: _____ | | |
| ☐ Wet Method - Non-continuous Spray (WM-NCS) Frequency: _____ | | |
| ☐ Other: | | |
| Silica written exposure control plan in effect? | ☐ Yes | ☐ No |
| Controls checked during sampling period? | ☐ Yes | ☐ No |
| Employee trained and familiar with operation of controls? | ☐ Yes | ☐ No |

| Environment | Nearby Visible Dust Sources |
|---|---|
| ☐ Outdoors | ☐ None |
| ☐ Open Sided (Free Flow) | ☐ Other workers doing same task |
| ☐ Enclosed on 1 Side (Limited Flow) | ☐ Partial from other tasks and sources |
| ☐ Enclosed All Sides (No Flow) | ☐ Continuous from other tasks and sources |
| ☐ Other: | ☐ Other: |

| Other Possible Interferences in Sampling Area(s) |
|---|
| |

| Wind Speed (mph) | | Source | Temperature (°F) | | Humidity (%) | |
|---|---|---|---|---|---|---|
| ☐ None | ☐ <5 | ☐ None | ☐ <40 | ☐ 40-90 | ☐ <20 | ☐ 20-40 |
| ☐ 5-10 | ☐ >10 | ☐ Natural | ☐ >90 | | ☐ 40-60 | ☐ 60-80 |
| | | ☐ Artificial | | | ☐ >80 | |

**Type & Number of Samples Collected**

☐ Personal (P): _____ ☐ Area (A): _____ ☐ Bulk (B): _____

**Agent**

☐ Silica (S) ☐ Silica w/ Respirable Dust (S/RD) ☐ Silica w/ Total Dust (S/TD)

| Sample ID | Description | Date Sampled | Collection Medium | Sample Volume, Time, or Area | Sample Units L, mL, min, in, $ft^2$ | Analysis Requested* |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

*Analytical Methods: OSHA ID-142, NMAM 7500, NMAM 7602, NMAM 7603, MSHA P-2, or MSHA P-7.

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# Silica Monitoring Form

| Laboratory Utilized (Name and Location) | |
|---|---|

| Laboratory Results | |
|---|---|
| Volume of Sample (L) [Average Flow Rate x Duration] | Volume of Sample ($m^3$) [1000 L = 1 $m^3$] |
| | |

| Weight (mg) | | | |
|---|---|---|---|
| Respirable Dust | α-Quartz | Cristobalite | Tridymite |
| | | | |

| Silica Content (%) | | |
|---|---|---|
| α-Quartz | Cristobalite | Tridymite |
| | | |

**Exposure Calculations**

**PEL** = 0.050 mg/m³ or 50 µg/m³**

**Silica Conc.** $_{Total}$ = $mg/m^3$ α-Quartz + $mg/m^3$ Cristobalite + $mg/m^3$ Tridymite = $mg/m^3$

**Exposure (8-hr TWA)** = $\frac{[(mg/m^3_{(1)} * time, min_{(1)}) + \ldots + (mg/m^3_{(n)} * time, min_{(n)})]}{480 \text{ min}}$ = $mg/m^3$

** $mg/m^3$ x 1000 = $\mu g/m^3$

| Comments |
|---|
| |

| Sampled By: |
|---|
| _____ Name (Print) |
| _____ Signature |

## "IF IT'S SILICA, IT'S NOT JUST DUST"

That saying is the Department of Labor's logo for a national effort to end Silicosis. Silicosis is a disease of the lungs caused by breathing dust containing crystalline silica particles. Crystalline silica is a natural component of the earth's crust and is a basic component of sand and granite.

### What are the symptoms of silicosis?

There are several stages of silicosis. Early stages may go completely unnoticed. Continued exposure may result in the exposed person noticing a shortness of breath, possible fever, and occasionally bluish skin at the ear lobes or lips.

Silicosis makes a person more susceptible to infectious disease of the lungs like tuberculosis. Progression of the disease leads to fatigue, extreme shortness of breath, loss of appetite, pain in the chest, and respiratory failure, which all may lead eventually to death. Acute silicosis may develop after short periods of exposure. Chronic silicosis usually occurs after ten or more years of exposure to lower levels of quartz.

### Where are construction workers exposed to crystalline silica dust?

The most severe exposures to crystalline silica result from abrasive blasting to remove paint and rust from stone buildings, metal bridges, tanks, and other surfaces. Other activities that may produce crystalline silica dust include jack hammering, rock/well drilling, concrete drilling, and brick and concrete block cutting and sawing.

### How is OSHA addressing exposure to crystalline silica-containing dust?

OSHA has established a Permissible Exposure Limit (PEL) which is the maximum amount of airborne crystalline silica that an employee may be exposed to during a work shift. OSHA has a Special Emphasis Program to inform employers and employees about the occurrence and hazards of crystalline silica and ways to reduce exposure to the dust.

### What can employees do to limit their exposure to crystalline silica?

- Employers are required to provide and assure the use of appropriate controls for crystalline silica-containing dust. Be sure to use all available engineering controls such as water sprays and ventilation on containment structures. Substitution of less hazardous materials can also be used.
- Be aware of the health effects of crystalline silica and that smoking adds to the damage.
- Know the work operations where exposure to crystalline silica may occur.
- Participate in any air monitoring training programs offered by your employer.
- Use type CE positive pressure abrasive blasting respirators for abrasive blasting operations.
- For other operations where respirators may be required, be sure to wear a respirator approved for protection against crystalline silica-containing dust. Do not alter the respirator in any way. Workers who use tight-fitting respirators cannot have beards/mustaches which interfere with the respirator's face seal.
- If possible: change into disposable or washable work clothes at the worksite, shower (where available) after the work is completed, and change into clean clothing before leaving the worksite.
- Do not eat, drink, use tobacco products, or apply cosmetics in areas where there is dust containing crystalline silica.
- Wash your hands and face before eating, drinking, smoking, or applying cosmetics outside of the exposure area.

Foreman _____ Job Name and #

| Signature | Date | Signature | Date |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Wildfire Smoke Policy**

Employees who work outdoors when there is a heightened level of exposure to wildfire smoke and the AQI for PM2.5 exceeds 150, are at risk of experiencing negative health effects from breathing in hazardous chemicals. It is the policy to reduce employee exposure to harmful respiratory hazards when wildfire smoke causes unhealthy air quality by developing employee and supervisor awareness of the health effects of wildfire smoke and proper response. All employees who work outdoors when AQI for PM2.5 exceeds 150 are expected to comply with the procedures in this program.
This policy is based on the Washington Administrative Code (WAC) 296-62-085 *Wildfire Smoke*.
The following workplaces and operations are exempt from this rule:

- Enclosed buildings or structures in which the employer ensures that windows, doors, bays, and other exterior openings are kept closed, except when it is necessary to open doors to enter and exit.
- Enclosed vehicles in which the air is filtered by a cabin air filter and the employer ensures that windows, doors, and other openings are kept closed except when it is necessary to open doors to enter or exit.
- Employees exposed to a concentration of $PM_{2.5}$ of 20.5 µg/m3 (Washington Air Quality Advisory [WAQA] 101, Air Quality Index [AQI] 69) or more for a total of one hour or less during a shift.
- Firefighters engaged in wildland firefighting.

**Definitions.**
**NIOSH.** The National Institute for Occupational Safety and Health of the U.S. Centers for Disease Control and Prevention. NIOSH tests and approves respirators for use in the workplace.
**NowCast Air Quality Index (AQI)**. The method used by the U.S. Environmental Protection Agency (EPA) to communicate air quality using color-coded categories. It shows the air quality

for the most current hour available by using a calculation that involves multiple hours of past data using the NowCast. The NowCast uses longer averages during periods of stable air quality and shorter averages when air quality is changing rapidly, such as during a wildfire. The NowCast is generally updated every hour.

**NowCast PM2.5**. The concentration of PM2.5 for the most current hour available by using a calculation that involves multiple hours of past data using the NowCast. The NowCast uses longer averages during periods of stable air quality and shorter averages when air quality is changing rapidly, such as during a wildfire. The NowCast is generally updated every hour.

**NowCast Washington air quality advisory (WAQA)**. The method used by the Washington state department of ecology to communicate air quality using color-coded categories. It shows the air quality for the most current hour available by using a calculation that involves multiple hours of past data using the NowCast. The NowCast uses longer averages during periods of stable air quality and shorter averages when air quality is changing rapidly, such as during a wildfire. The NowCast is generally updated every hour.

**PM2.5**. Solid particles and liquid droplets suspended in air, known as particulate matter, with an aerodynamic diameter of 2.5 micrometers or smaller. Measured in micrograms per cubic meter (µg/m3).

**Sensitive groups.** People with preexisting health conditions and those who are sensitive to air pollution who are among those most likely to experience health problems from exposure to wildfire smoke. Examples of sensitive groups include:

• People with lung diseases such as asthma or chronic obstructive pulmonary disease (COPD), including bronchitis and emphysema, and those who smoke;

• People with respiratory infections, such as pneumonia, acute bronchitis, bronchiolitis, colds, flu, or those with, or recovering from COVID-19;

• People with existing heart or circulatory problems, such as irregular heart beat, congestive heart failure, coronary artery disease, angina, and those who have had a heart attack or stroke;

• Children under eighteen years old, and adults over age sixty-five;

• Pregnant women;

• People with diabetes;

• People with other medical or health conditions which can be ex-acerbated by exposure to wildfire smoke as determined by a physician.

**Wildfire smoke.** Emissions from fires in wildlands or in adjacent developed areas.

**Wildlands.** Sparsely populated geographical areas covered primarily by grass, brush, trees, crops, or combination thereof.

**Air Quality Monitoring and Communication**

Christi Kitt will determine the air quality for exposure to PM2.5 before each shift using one of the methods listed in WAC 296-62-08530.

Christi Kitt will communicate wildfire smoke hazards of $PM_{2.5}$ is 20.5 µg/$m^3$ (WAQA 101, AQI 69) or more, as needed via tool box talks, signage or text. Employees are encouraged to inform their supervisor, site supervision, or safety professional when air quality is worsening, or adverse symptoms are noticed that could be related to wildfire smoke exposure.

**Training**

Christi Kitt will train all employees regarding the health effects (including those in sensitive groups), action limits, controls, and accepted measurement/ reporting of wildfire smoke concentrations. Employees will be trained in their rights to seek medical treatment for wildfire smoke exposure, the requirements of WAC 296-62-085 through 296-62-08590. This training will also detail the company plan for tracking and mitigating wildfire smoke exposure, including respirator use and limitations.

**Controls**
Where the NowCast $PM_{2.5}$ is 20.5 µg/$m^3$ (WAQA 101, AQI 69) or more, the employer *is encouraged* to implement exposure controls.
Where the NowCast $PM_{2.5}$ is 55.5 µg/$m^3$ (WAQA 173, AQI 151) or more, the employer **must** implement exposure controls whenever feasible.
Controls include:

- providing enclosed buildings, structures or vehicles
- providing portable HEPA filters in enclosed areas
- relocating work to a safer air quality location
- changing work schedules
- reducing work intensity
- providing additional rest periods

**Respiratory Protection**
At an AQI above 69, employers are encouraged to provide respirators upon request, no cost to employees.
At an AQI above 151, employers are required to provide respirators and encourage their use.
Training for use of respirators shall follow Appendix B of WAC 296-62-08590 and include:

1. The health effects of wildfire smoke
2. The right to obtain medical treatment without fear of reprisal
3. How to obtain the NowCast PM 2.5
4. Resources to obtain the air quality data
5. Requirements of WAC 296-62-085 through 296-62-08590
6. The company's methoods to protect employees from wildfire smoke
7. The importance, limitations, and benefits of using a respirator when exposed to wildfire smoke
8. How to properly use and care for respirator