ABSOLUTE COMFORT TECHNOLOGY, LLC

Accident Prevention Program

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ACCIDENT, INJURY, NEAR MISS INVESTIGATION

I. PURPOSE AND SCOPE

To establish effective procedures and guidelines for the investigation and reporting of all accidents, injuries, and/or near misses.

II. ACCIDENT INVESTIGATION REQUIRING DOCUMENTATION

A. Any accident, incident, or event that results in a work related injury, illness, or property damage must be investigated and documented.
B. All near misses that had potential to create injury and/or substantial property loss

III. REPORTING & RESPONSIBILITIES

The requirements for accident response and reporting are as follows:

A. Any incident that results in property damage, personal injury or illness that requires medical attention or hospitalization (other than basic first aid at jobsite), must be immediately reported to the Project Supervisor. The Project Supervisor, Safety Representative, or Site Supervisor is responsible to make a determination of extent of injury or treatment **and arrange for, and provide transportation of injured worker(s) for medical treatment.** The Project Supervisor's role is to be available at treatment center to assist in answering questions relating to the incident, treatment instructions, light duty work options, and follow-up with drug testing policy and procedures.

(Drug & Breathalyzer test mandatory at treatment facility prior to release)

B. The Project Supervisor or on-site Safety Representative will prepare and deliver a preliminary report to the Safety Director within 12 hours of occurrence. An accident investigation will then be conducted within 24 hours between the Safety director and the Project Supervisor.
C. A final report will be completed within five (5) workdays of occurrence. The Safety Director shall be responsible for determining distribution of final reports in accordance with State and Federal laws. A final investigative report on finding a root cause will be reviewed by the Safety Director, Project Manager and Project Supervisor and will be maintained at the Corporate Office. If any Company Safety Policy violations or negligence is determined to be a contributing cause of the accident by either the employee or the Project Supervisor, appropriate disciplinary action will be determined at that time.
D. All accidents that require off-site medical attention, i.e.; emergency room, doctor's office, chiropractor, etc., must have the following information in the initial report:

1. Name of Injured
2. Date and time of injury
3. Type(s) of injury
4. Exact location of accident
5. Factual description of accident
6. Witness(s) names, addresses, and written statements
7. Sequence of activities on-site prior to and following accident
8. Investigation (facts determined during investigation)
9. Copy of L & I "Industrial Accident Claim Form" written up at doctor's office.
10. Drug test and alcohol Breathalyzer test "Custody & Control Form" returned to office within 24 hrs. of accident
11. Request a "Return to Work Form" be completed at the doctor's office if possible. (Injured worker cannot return to work without this release)

E. Photographs
1. **Do not move or alter anything at an accident scene to get a better picture.**
2. Use of photographs or videotaping is recommended to document all accident investigations. This will be approved and controlled by the Safety Director.
3. Photographs will be taken during the investigation of accidents involving serious personal injury, substantial property damage, equipment or material failure, and all accidents that may involve a third party.
4. Do not spare the use of film. Take pictures from a variety of angles to truly reflect the scene. Photos and video should be taken as soon as possible after the accident and throughout the field investigation process. Concise written records shall be kept of the location, time, and weather conditions of areas being photographed or videotaped.

F. Exhibits (All exhibits must not be moved or altered)
1. Broken slings, cables, equipment, etc.
2. Sheriff/Police reports a photograph
3. Witness statements/photos/video
4. Miscellaneous (Results of analysis, consultants' reports, etc.)

IV. THE SCENE

A. Number one priority – Call or send someone for help first, then provide first-aid and/or CPR to injured person(s).

B. Secure the scene as soon as possible.
1. Send a person to direct emergency medical personnel to accident site.
2. Shut down all work in close proximity.
3. Do not allow people to enter, alter, or remove anything from the scene.
4. Barricade entire area with caution tape or by any other effective means.
5. Notify Absolute Comfort Technology, LLC Corporate Safety as soon as possible

C. Witnesses

1. Identify potential witnesses and do not allow them to leave the project site.
2. Take all witnesses to a neutral staging area away from the scene.
3. Keep witnesses separated. Do not allow them to converse with each other about what happened. We need their version about what happened, not a composite of each other's stories.
4. Make sure all written witness statements are signed and dated to include information on how to contact them if additional follow-up is required.

An accident which involves a fatality, or which results in hospitalization of one or more employees are required to be reported to DOSH within eight (8) hours of the accident occurrence.

Contact Absolute Comfort Technology, LLC Corporate Safety immediately with pertinent, accurate information.

1. Name of the work place
2. Location of the incident
3. Time and date of the incident
4. Number of fatalities of hospitalized employees
5. Contact person
6. Phone number
7. Brief description of accident

Corporate Safety will conduct an internal investigation and will be present during all OSHA or DOSH investigations.

Do not give out any information to news or paper reporters pertaining to an accident. If asked to make a statement it is important to provide a brief response. After making your statement, excuse yourself politely, and do not allow other employees to make any additional statements or comments.

ASBESTOS POLICY

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 Absolute Comfort Technology, LLC to perform the work.

Our employees are instructed that if they suspect the presence of asbestos or any hazardous material, to cease work immediately in that area, notify the Superintendent, and install a safety banner to mark the area.

Work will continue only after the area has been tested and cleared of hazardous material or the proper safety protocols, practices and abatement are in place to ensure the safety of all personnel and subcontracted personnel.

Bloodborne Pathogens Exposure Control Plan

This exposure plan is established to protect occupational exposed employees from hazards of bloodborne pathogens, in particular HIV and Hepatitis B Virus. The Safety Director is responsible for establishment, implementation and maintenance of all aspects of this Exposure Control Program. These procedures will be reviewed and updated in accordance with the regulations.

A. DEFINITIONS

1. **Blood -** Human blood, human blood components, and products made from human blood.
2. **Bloodborne Pathogens -** Pathogenic microorganisms that are preset in human blood and can cause disease in humans. These pathogens include, but are not limited to Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).
3. **Contaminated -** The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
4. **Decontamination -** Use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use or disposal.
5. **Exposure Incident** - A specific eye, mouth, other mucous membrane, non-intact skin, or potential contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

B. EXPOSURE DETERMINATION

Designated first aid responders are the affected employees who are considered exposed, or will potentially be exposed, to blood and/or other potentially infectious materials.

C. RECORDKEEPING

1. Medical Records: An accurate record for each employee with occupational exposure will be kept in a confidential file.
2. Training Records: Training records will include the dates, content, names of those attending and the name of the person conducting the training.

D. EXPOSURE CONTROL

1. Universal precautions must be observed to prevent contact with blood or other potentially infectious materials. All employees that perform first aid/CPR should use the proper personal protective equipment.
2. Hand washing facilities will be provided at each jobsite. This may consist of; running water and soap, or antiseptic hand cleanser or towelettes. Employees must wash hands and any other skin immediately following contact of such body areas with blood or other potentially infectious materials.
3. Personal Protective Equipment
    a. Disposable rubber gloves shall be worn when the employee may have contact with blood.
    b. Pocket masks or mouthpieces will be used while performing CPR.
    c. When personal protective equipment is removed it shall be placed in an appropriately designated area for storage, washing, decontamination or disposal.
4. Housekeeping
    a. All equipment and working surfaces must be cleaned and decontaminated after contact with blood or other potentially infectious material. The decontamination shall occur as soon as feasible, using an appropriate disinfectant.
    b. All contaminated materials, (i.e. gloves, pocket masks, clothing) shall be collected and sealed in a plastic bag for proper disposal.

E. POST EXPOSURE EVALUATION AND FOLLOW UP

Following report of an exposure incident, the exposed employee will be provided a confidential medical evaluation on follow-up including:

1. Documentation of the route of exposure, and the circumstances of the exposure incident.
2. Identification and documentation of the source individual.
3. Source individual's blood will be tested for HBV/HIV infection as soon as feasible after exposure.
4. Exposed individual will be advised of source individual's test results and informed of applicable laws and regulations concerning disclosure of identity and infectious status of the source individual.
5. Exposed individual will be provided with blood testing, post-exposure treatment, counseling and evaluation of reported illness.

F. TRAINING

1. Employees will receive initial training and an annual refresher course which will include the following
    a. Review of WAC 296-62-08001 and company Exposure Control Plan.
    b. A general explanation of the epidemiology and symptoms of bloodborne diseases.
    c. An explanation of the modes of transmission of bloodborne pathogens.

d. An explanation of the use and limitation of methods that will prevent or reduce exposure including appropriate work practices, and personal protective equipment.
e. An explanation of the procedures to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.

EXPOSURE CONTROL PLAN
Post Exposure Evaluation and Follow-up Source Individual Consent Form

Date of Exposure:

Exposed Employee Name(s) _____ SSN: _____

_____ SSN: _____

_____ SSN: _____

Source Individual Name (if known): _____

Relation to Company: _____

CONSENT FROM SOURCE INDIVIDUAL:

Legally required consent cannot be obtained because source:

___ Refused ___ Unavailable ___ Unknown ___ Deceased ___ Not legally competent to sign

___Other (please specify):_____

I consent to be tested for (specify) ___HBV ___HIV (or authorize release of records that indicate my status on the condition(s) checked) to the company's designated provider only. I am aware that the results of the test(s) will be made available to the exposed employee(s) named above. However, this consent to test is valid only if the exposed employees are informed in writing by the designated medical provider of the applicable laws and regulations concerning the disclosure of my identity and infectious state.

_____ _____

Source Individual Signature **Date**

_____ _____

Witness Signature **Date**

DIRECTIONS FOR EMPLOYER MAIN OFFICE

Send a copy of this form to the designated medical provider if an occupational exposure is reported, along with copies of:

___ Relevant employee accident reports ___ Supervisor's accident report.

Original of this form must be filed in the exposed employee's confidential claim/incident file.

EXPOSURE CONTROL PLAN

Post Exposure Evaluation and Follow-up
Designated Medical Provider's Written Opinion Form

Employee Name: _____ SSN: _____

Date of Exposure: _____ Date of visit:_____

___ The employee has been informed of the results of the evaluation.

___ The employee has been informed of any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment

_____ _____
Designated Medical Provider Signature Date

_____ _____
(Please Print or Type Designated Medical Provider's Name) Employee's Signature

DIRECTIONS TO MEDICAL PROVIDER

Please Complete this form and provide a copy to:
___ Employer (Date sent: _____) ___ Employee (Date Sent:_____)

If a Washington State Industrial Insurance Accident report has been filed, please provide claim number:
_____

DIRECTIONS TO EMPLOYER MAIN OFFICE

___Send a copy of this form to employee if not sent by provider as indicated above (Date sent: _____).

Establish a specific confidential claim/incident file containing the following:
___ This original form.
___ Copy of the exposed employee's Hepatitis B Vaccination Declination or Accident Form.
___ Original of relevant Employee Accident Report.
___ Supervisor's Accident Report.
___ Other claim documentation.

EXPOSURE CONTROL PLAN
Exposure Control Training Form (Individual)

Employee Name & Title: _____ Date of Training:_____

TRAINING OUTLINE
The trainer will provide copies of and/or verbally explain to the employee the following:

- ❑ A copy of the regulations and an overview of the requirements of the regulation, including an explanation of its contents and the locations of the copies of the regulations at our company.
- ❑ An explanation of our EXPOSURE CONTROL PLAN and where an employee can obtain a copy.
- ❑ A general explanation of the epidemiology and symptoms of bloodborne diseases.
- ❑ An explanation of the modes of transportation of bloodborne pathogens.
- ❑ An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
- ❑ An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate, work practices, and personal protective equipment.
- ❑ Information of the types, proper uses, location, removal, handling, decontamination, and disposal of personal protective equipment
- ❑ An explanation of the basis for selection of personal protective equipment.
- ❑ Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, and the benefits of being vaccinated.
- ❑ Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
- ❑ An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting, and medical follow-up that will be made available.
- ❑ Information on the post-exposure evaluation and the follow-up the employer is required to provide for the employee following an incident.
- ❑ An opportunity for interactive questions and answers with the trainer.

_____ _____
Signature of Trainer Date

_____ _____
Trainer's Qualifications Employee Signature

DIRECTIONS TO EMPLOYER

Claim Coordinator Responsibilities

1. Complete the Employer's portion of the State Fund Accident Report Form, utilizing information recorded on Absolute Comfort Technology, LLC Accident report form and payroll records. Contact the claimant's immediate supervisor if additional information is needed.
2. Develop a filing system for industrial insurance claims, e.g.
    a. One file folder with alphabetized Medical Only Open claims
    b. One file folder with alphabetized Medical Only Closed claims
    c. Individual file folders for each time-loss claim
    d. Arrange all documents associated with each claim chronologically, beginning with the State Fund Accident Report form received from the doctor.
3. Monitor claims by maintaining a log of open claims which lists basic claim information and action to be requested or taken in each case
4. Additionally, monitor time-loss claims by completing and updating a check-list for each claim
    a. Information and documents from the Dept. of Labor and Industries
    b. Information from the claimant's supervisor or safety officer
    c. Information received from the claimant
    d. Information gained from treatment providers
    e. Action taken or requested, and dates involved
5. Communicate with claimants, supervisors, treatment providers and the L&I Claims Manager/Adjudicator, staying informed as to the employee's recovery and claim status
6. When appropriate, protest or appeal the allowance of unwarranted claims &/or continued time loss, following guidelines furnished by the Department.
7. Facilitate the employee's early return to work at full or modified duty, informing the Department immediately when employment is resumed.

Confined Space Entry

PURPOSE

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

POLICY

Before any employee enters a confined space they shall be trained in confined space entry procedures, conducting pre and continual atmospheric testing, and recognition, evaluation and control of suspected or known hazards associated within a confined space.

DEFINITIONS

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

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

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

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

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

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

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

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

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

PPM:
Parts per million of a substance.

PROCEDURE

A. Pre-Entry:

1. The supervisor in charge of the job shall review the procedures for entering a confined space with each member entering a confined space and any problems shall be referred to the Safety Supervisor.

2. Supervisor shall secure entry permit and fill out the top portion at the safety office.

3. Supervisor shall secure an atmosphere monitor from the safety office.

4. All pre-work procedures shall be completed before work commences within the confined space. Pre-work procedures include but are not limited to:
    a. Proper ventilation
    b. Stand-by person
    c. Adequate lighting/emergency lighting.
    d. Life line
    e. Communications
    f. Personal protective equipment
    g. Fire extinguisher
    h. Lockout/Tag-out of equipment

5. After all pre-work procedures have been completed the supervisor shall do atmospheric testing of the confined space. Atmospheric testing shall be done with one of the following monitors: National Dragger Model 180 oxygen monitor, or a Gas Tech Ox 80 or Ox 82 monitor. Atmospheric testing results shall be recorded on the permit and the Supervisor will sign the permit.

6. All persons entering the confined space and the stand-by personal shall sign in on the permit.

7. The permit shall be hung at the opening of the confined space.

B. Working in Confined Space:

1. When initial monitoring is completed the monitor shall stay with the employees working in the confined space. The monitor shall be kept in close proximity of employee, so the alarm can be heard.

2. Work may commence at this time.

3. If the alarm is activated, monitor malfunction, ventilation discontinues or lighting, everyone shall evacuate the confined space until the problem is solved.

C. Completion of Work:

1. After completion of work or end of the workday, all persons working in the confined space and stand-by person shall sign out of the permit.

2. All monitors and permits shall be returned to the safety office.

D. Training Procedures:

1. **Attendant shall be trained in the following areas:**
   a. Permit system
   b. Testing ad monitoring
   c. Set up of proper ventilation
   d. Set up of adequate lighting
   e. Proper use of lifeline
   f. Determining proper type of communications system to be used.
   g. Correct use of fire extinguisher
   h. Lockout/Tag-out procedures
   i. Emergency procedures

2. **Person entering confined space:**
    a. Use of personal protective equipment
    b. Set up and use of proper ventilation
    c. Permit system
    d. Testing and monitoring
    e. Set up of adequate lighting
    f. Proper use of lifelines
    g. Determining proper type of communications system to be used
    h. Lockout/Tag-out procedures
    i. Emergency procedures
    j. Hazards associated within a confined space.

CONFINED SPACE ENTRY PERMIT

Facility/Project:				
Permit Good This Date:	Beginning Time ❑ AM ❑ PM		Ending Time ❑ AM ❑ PM	
Equipment to be Entered:				
	ALL SECTIONS MUST BE COMPLETED	YES	NO	N/A
1.	A. Have you personally inspected the equipment and is it clean and free of oil, gas, and chemicals?			
	B. Was a gas detection device used?			
2.	Has the equipment been flushed with water?			
3.	Has the equipment been thoroughly purged?			
4.	Is the equipment sufficiently opened to allow adequate ventilation?			
5.	Is the equipment properly labeled and tagged?			
6.	Has all electrically driven equipment been de-energized and tagged?			
7.	Are nearby sewers and drains properly sealed?			
8.	Have you personally inspected surrounding conditions including atmosphere and wind direction? Are they satisfactory?			
9.	Has all safety and life support equipment been tested and found in good working order?			
10.	Is sufficient lighting equipment available?			
11.	A. Has an oxygen deficiency test been made?			
	B. If so, is there sufficient oxygen?			
12.	Is a HOT WORK PERMIT required?			
13.	Have other personnel affected by this work been notified?			
14.	COMMENTS			

Entrant Signature:	Date:	Time In:	Time Out:

This permit is to be posted at the site of the work on a stake or post. It is to be returned at the end of the permit period to the approved supervisor. If the work is incomplete at that time, a new permit must be issued.

Supervisor Signature:_____ Permit Number : _____

Control of Energy Sources: Lockout/Tagout

1.0 Purpose

Absolute Comfort Technology, LLC has established this lockout/tagout program to provide the maximum protection to our employees whenever machines or equipment must be isolated from energy sources, and to prevent unexpected energization, start-up, and/or release of stored energy that could cause injury.

- The primary method of hazardous energy control will be accomplished by utilization of this lockout/tagout program. This program is intended to meet or exceed current regulatory minimum requirements.
- Employees involved in the installation, maintenance, repair, or servicing of equipment that requires the bypassing of guards are required to follow this policy. Those involved will be instructed in the safety significance of the lockout procedures to follow.
    - Each authorized employee will know all the energy sources and processes within the equipment and machinery. All sources of energy are covered under the procedures of this program, including electrical, mechanical, hydraulic, gravity, kinetic, energy, pneumatic, chemical, thermal, and other energy sources.
    - When repairing and servicing cord and plug electrical equipment, the power cord must be pulled from the energy source prior to repair. If the plug remains under the exclusive control of the employee performing the servicing and there are no other energy sources (or as mentioned above), no additional lockout/tagout procedures are required.

Note: Electrical work is covered on the electrical standards, which requires the similar type of lockout procedure with several exceptions. Live parts must be de-energized unless it can be demonstrated that there are additional or increased hazards or is infeasible due to equipment design or operational limitations. *These procedures may only be used by employees qualified, trained, and authorized to by Absolute Comfort Technology, LLC to do so.*

Examples:

- Increased or additional hazards: interruption of life support equipment, deactivation of emergency alarm systems
- Infeasibility due to equipment design: testing on electric circuits that can only be performed with the circuit energized

2.0 Responsibility

- **Supervisors/safety director** are responsible for providing instruction on the lockout/tagout

procedures and the safety significance as outlined in the training requirements of this program. Supervisors/safety director are responsible for conducting periodic audits to ensure that proper lockout/tagout procedures are being followed and to record the results of the audit. Audits must be done on an annual basis at minimum.

- **Management/safety department** is responsible to see that the overall policy is developed and works with maintenance and construction supervisors, the safety committee, and employees to ensure implementation.
- **Authorized employee:** A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment.
    - It is the trained, authorized employee's responsibility to follow this program. Employees are to use their individually assigned lock and key. No other person shall be allowed access to your key or your lock. No one is allowed to remove your lock except as prescribed in this policy.
    - Locks come with two keys; it is OSHA's standard and Absolute Comfort Technology, LLC policy for the **authorized employee to have the only key to his/her assigned lock.** The other key is discarded or destroyed. There is no master key for our locks.
- **Affected employees:** employees whose job requires him/her to operate or use equipment on which servicing and maintenance is being performed under lockout/tagout, or whose job requires him/her to work in the immediate area in which such servicing and maintenance is being performed.

  An affected employee's responsibility is to ensure that they do not attempt to operate any equipment being locked-out/tagged-out, and follow all safety procedures in shut down and restarting equipment.
- **All other employees:** employees who may see lockout/tagout on equipment are to honor the locks and tags and make no attempt to start or remove the devices.

3.0 Training

A key component of this program is employee training. It is the supervisor's/safety director's responsibility to see that all employees involved in this program are trained. The authorized employees are to receive additional specialized training as outlined in this program. The lockout/tagout training documentation must include a training course summary, training date, and employee name.

4.0 Basic Lockout/Tagout Procedures

- All equipment energy sources capable of being locked out during construction servicing, repair, or maintenance will be identified and locked and tagged-out to prevent accidental or inadvertent operations which could cause injury.

  Energy sources may include any of the following: electrical, pneumatic, hydraulic, stored energy (gravity, springs), thermal, fluid flow, pressure, all geothermal piping, and gasoline/diesel driven

machines.

- Equipment energy sources not capable of being locked out will be isolated and then tagged out to inform all others of the safety procedure in use and to ensure that no operation of the equipment is permitted.

  Some equipment is not capable of being locked out, such as older power panel installations. *(New lockout devices are regularly designed and available for purchase.)* Utilize tagout alone when there is not a lockout system or device.

- Typical conditions requiring lockout/tagout devices include:
  - Any time repairs, servicing, and/or changes are being done on machines or equipment, and the safeguards are bypassed. When working on electrical circuits in which the employee could come into contact with hazardous energy sources (mechanical, pneumatic, hydraulic, or stored energy).
  - When working on systems that contain hazardous substances or high pressure lines, the systems should be clearly marked. Valves in the system should be capable of being locked out. In the case of high pressure lines, there should be a means of safely relieving pressure in blocked sections.
- No employee shall attempt to operate any switch, valve, or other energy isolating device bearing a lockout/tagout device.
- Lock securing switch levers to prevent activation of electrical circuits or equipment where work is being completed. If the system is not capable of being locked out, apply a tagout that is securely fastened to the disconnect lever or at the immediate area to warn of the ongoing procedure.
- Other basic controls may be needed to control the type(s) of energy present:
  - **Hydraulic energy**: close valve and bleed off line or block the device.
  - **Air pressure**: close valve and bleed off pressure from line prior to working on the device. **Note:** some valves open when they lose pressure, which can cause hydraulic or other liquid flows that could be hazardous to employees. These valves must be isolated and controlled.
  - **Springs**: attach a hold-down device or leave in open position where no stored energy is present.
  - **Fluid flow – water pressure**: ensure proper gate devices are used that hold the back pressure, or drain lines so no fluid pressure is present.

5.0 Lockout/Tagout Hardware (Equipment)

- Locks, tags, and hasps will be used as energy isolating devices. Valves with handle and lock attachment holes will be locked out. If the locks become damaged in any way, immediately seek a replacement lock.

- Valves not capable of being locked out will have tags placed on them with a slip lock plastic attachment device capable of withstanding 50 pounds of pressure.
- Hardware is required to meet the following criteria:
  - Able to withstand weather and all types of exposures
  - Standardized by color, shape, size, or format
  - Contain locks substantial enough that they cannot be removed without excessive force
  - Singularly identifiable
  - Device must only be used for controlling energy, not used for any other purpose
  - Tags must be substantial enough to prevent inadvertent or accidental removal
  - Lockout/tagout devices shall indicate identity of employee applying device.
  - Tag must have a written warning on it, i.e., **Do Not Start – Locked Out.**
- Locks, tags, hasps, chains, and other restraining devices will be kept by each authorized employee. Additional locks and equipment will be kept at the job shack or service truck. Each supervisor will assure that the location of the lockout equipment has appropriate supplies and will procure additional lockout equipment as necessary.
- **Remember,** prior to the start of work that places an employee in danger of hazardous energy release, the authorized employee(s) must place their personal lock and tag on the energy isolating device.

6.0 Sequence for a Lockout/Tagout Procedure

The lockout/tagout procedure must be conducted in the following manner. No deviations will be tolerated.

a) The authorized employee shall notify the affected employees that the lockout/tagout system is going to be utilized.

b) If a particular piece of equipment is operating, it must be shut down by the normal stopping procedure, such as depressing the stop button or opening the switch. Some equipment has detailed procedures that need to be followed by trained employees.

c) Once the lockout/tagout device is in place, the authorized person(s) shall lock out and tag out the energy isolating device of the equipment or machines by using individually keyed locks. These lockout/tagout devices are assigned to each employee as part of his/her tools, assigned by a supervisor, or attained from our job site lockout center on an as needed basis. Locks are individually keyed and meet all requirements of governing codes for lockout/tagout. Authorized employees may have need of multiple lockout hardware for the job being performed. **Note:** each authorized employee will place their own lock at the energy lockout location.

d) After ensuring that no personnel are exposed, the authorized person(s) shall complete another check to make sure that all of the energy sources have been disconnected. The type of verification testing will depend on the type of equipment or electrical installation. Equipment may be tested by trying to operate it by turning on the controls.

e) The authorized employee(s) must operate the switch, valve, or other energy isolating device to make sure the equipment is isolated from its energy source. Stored energy, such as the energy found in springs, rotating fly wheels, hydraulic system, compressed air, or gas lines must be dissipated or restrained by repositioning, blocking, or bleeding down.

CAUTION: Return operating controls to "neutral" or "off" position after test.

f) Most of the electrical disconnects operating various pieces of equipment can be locked out; however, if other equipment energy requiring control cannot be locked out, then a tagout device will be used. The tagout device must be attached on the energy isolating device. The tag must clearly indicate that the operation or start-up of the energy isolating device from the safe or off position is prohibited.

7.0 Equipment Testing Under Lockout/Tagout

At times, some of our equipment must be tested or positioned while doing maintenance or repair. The following procedure must be followed under those conditions:

- Clear the machine or equipment of all non-essential tools and materials.
- Ensure that all employees are clear of the machine or equipment, and notify them that the machine will be energized.
- The authorized employee(s) shall remove their lock.
- Energize and proceed with the testing or positioning
- De-energize all systems and complete the shutdown and lockout/tagout procedures before continuing any further maintenance or service.

8.0 Restoring Operating Equipment to Normal Operational Status

When the authorized employee(s) has completed their work, then the lockout device and tag can be removed. The following procedure will be followed during that process:

a) The authorized person(s) shall inspect the work area to make sure that all of tools have been removed from the machine and to ensure that the machine or equipment components are operationally intact.

b) Check the work area to ensure that all employees have been safely positioned.

c) Notify all of the affected employees that the equipment is to be restarted.

d) Remove lockout and tagout device.

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

9.0 Removal by Someone Other Than the Person That Applied the Lock

Note: Removal of a safety lockout or tagout device by any person other than the authorized employee, who applied it, may only be done under the direction of the project manager, or in his absence, by the employee's supervisor, under the following procedure:

- The project manager or supervisor will verify that the authorized employee who applied the device is not at the facility by checking with the immediate supervisor and co-workers.
- The project manager or supervisor will contact the authorized employee, at home if necessary, to inform him that his lockout and/or tagout device needs to be removed. If the employee cannot return to remove the lock, then the supervisor will inform the person that the lock is being removed. The supervisor or lead person may then cut the lock off.
- The project manager or supervisor must follow all the correct protocols for removal of a lockout or tagout as outlined above, and safely place the equipment back in service and then notify affected employees.
- If all reasonable efforts have been made to contact the authorized employee, but the person was not reachable, the supervisor will ensure that the authorized employee upon return to work will know that his/her lock was removed and that routine operation of the equipment is now occurring.

10 Procedure Involving More Than One Person

- If more than one employee is required to lock out or tag out equipment, each shall place his/her own personal lockout device or tagout device on the energy isolating device(s). When an energy isolation device cannot accept multiple locks or tags, a multiple lockout/tagout device (hasp) is to be used, or a gang lock box containing the only key to the lock on the energy isolating device(s).

11 Shift or Personnel Changes

During shift or personnel changes, the hazardous energy control responsibility will be transferred in a manner that maintains uninterrupted protection for the employees involved.

- All employees in the immediate affected work area shall be informed of the transfer of lockout/tagout devices between the off-going and incoming shifts.
- Incoming shift employees must verify the equipment has been de-energized and proper procedures have been followed.
- The incoming authorized employee(s) shall apply his/her own lockout/tagout device to the energy control source prior to the removal of the lockout/tagout device by the off-going authorized

employee(s).

- The incoming authorized employee(s) shall ensure that no personnel are exposed, and as a check that all energy sources are disconnected, operate the push button or other normal operating controls to make certain the equipment will not operate. Return operating control(s) to the "off" position after the test.

12 Contractors

- When working with other contractors, their activities may create hazards which normally are not present to our regular employees.
- A copy of our procedures will be given to that contractor, and a mutually agreed upon procedure concerning the lockout/tagout devices will be used to protect all employees and the contractor's workers. This coordination will help to ensure that all employees know the type of work to be performed, the location of the work, and protection measures.
- The contractor's authorized employee(s) will be responsible to lock out/tag out all devices capable of locking or place an energy control tag on or as near the device as possible.

13 Periodic Inspection

Periodic inspection is intended to ensure that the energy control procedures are implemented properly, and the employees involved are familiar with their responsibilities. OSHA requires an inspection of lockout procedures be completed at least annually.

- Management/safety director will complete or assign the periodic inspection of the lockout/tagout program procedures to be performed at least annually to ensure that the procedure and the OSHA rules are being followed.
- The periodic inspection will be performed by an authorized employee not involved in the energy control procedure being inspected. The inspector must determine three issues:
  1. Whether the steps in the energy control procedure are being followed.
  2. Whether the employees involved know their responsibilities under the procedure.
  3. Whether the procedure is adequate to provide necessary protection and if changes are needed.
- The inspector will observe and talk with the employees to make these determinations. These inspections are intended to provide immediate feedback and correct any inadequacies observed.
- Supervisor/safety director will make and keep a record of these inspections. OR-OSHA does not state a specific length of retention for the periodic inspections; therefore, Absolute Comfort Technology, LLC will keep at least the most recent two inspections. The certification will have the following documented: date, equipment, the names of employees included in the inspection, and the

person performing the inspection.

14 Employee Training

The purpose of training is to provide information to employees regarding the following:

- Recognition of hazardous energy sources
- Type and magnitude of energy available in the workplace
- Function and purpose of the energy control program
- To ensure that each worker has the knowledge and skill for the safe application, usage, and removal of energy blocking devices.
- Methods and means necessary for energy isolation and control

Retraining will be conducted whenever a periodic inspection reveals or causes a reason to believe there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures. The retraining will reestablish employee proficiency and introduce new or revised control methods and procedures as necessary.

15 Documentation of Training

- The supervisor/safety director will document employee training has been accomplished and is being kept up to date. Verification of training will be kept and filed at the corporate office/safety department.
- The training verification includes the employee's name, job title, employee signature line, training date, signature line for the supervisor or qualified person conducting the training, their job position, and date.
- The documentation shall be filed in the employee's training file.

Absolute Comfort Technology, LLC LOCKOUT/TAGOUT LOG				
Lock #	**Responsible Person**	**Date Out**	**Equipment Locked Out**	**Date In**

Lockout/Tagout
Energy Control Procedures
Specific to Each Machine

Preparation for Shut Down

1. Identify equipment to be shut down: _____
2. Location in facility: _____
3. Procedures to notify all **affected employees**: _____
   _____
   _____
4. Identify **all** power sources:

a) Electrical: _____
b) Air:
c) Steam:
d) Hydraulic: _____
e) Gravity:
f) Other:

5. Identify lockout/tagout devices to be used _____
   _____
   _____
   _____
   _____

Shutdown

Description of the shutdown procedures: _____
_____
_____
_____
_____

Isolation

Procedures for isolation of equipment from **all** power sources: _____
_____
_____
_____

Lockout/Tagout Device Application

Procedure for locking out or tagging out equipment: _____
_____
_____
_____

Release of Stored Energy

Procedures for the release of stored energy (where applicable): _____
_____
_____
_____

Verification of Isolation

Procedures to ensure that equipment is isolated from **all** power sources: _____
_____
_____

Startup

1. Visual inspection of the machine and equipment. Ensure all tools have been removed. Return guards to place.

2. Notify all **affected employees** and **other** employees of the startup.

3. Remove all lockout/tagout devices and restore power.

Lockout/Tagout Inspection Form

Note to employers: Use this form to document an inspection of a written lockout or tagout procedure.

Department: _____ Equipment type and serial number: _____

Inspection conducted by: _____

Equipment location: _____

Inspection date: _____

List authorized employees using this procedure. Has the employee been trained in the procedure?	
Employee name: _____	☐ Yes ☐ No
Employee name: _____	☐ Yes ☐ No
Employee name: _____	☐ Yes ☐ No
Employee name: _____	☐ Yes ☐ No
Do *authorized* employees know the location of the written procedure?	☐ Yes ☐ No
Do *authorized* employees have access to the procedure?	☐ Yes ☐ No
Are *affected* employees notified when the procedure is being used?	☐ Yes ☐ No
Have *affected* employees been trained to recognize when the procedure is being used and instructed not to remove lockout/tagout devices or start de-energized equipment?	☐ Yes ☐ No
Can energy-isolating devices be locked out? *Note: When you replace, renovate, or modify machines and equipment, ensure that the energy-isolating devices will accept lockout devices. New equipment and equipment renovated or modified after January 2, 1990 must be capable of being locked out.*	☐ Yes ☐ No
Did each *authorized* employee lock out all energy sources?	☐ Yes ☐ No
Does this procedure involve group lockout/tagout?	☐ Yes ☐ No
Did the *authorized* employees verify that the equipment was de-energized?	☐ Yes ☐ No
Did the *authorized* employees follow the lockout/tagout procedure?	☐ Yes ☐ No

Does the lockout/tagout procedure adequately protect employees? ☐ Yes ☐ No

If not, list and describe the deficiencies requiring corrective action.

1. _____
2. _____
3. _____
4. _____
5. _____

If this is a lockout procedure, did the inspector review with all *authorized* and affected employees their responsibilities under the procedure? ☐ Yes ☐ No ☐ Not applicable ☐

Note: A review can be accomplished by meeting with employees individually or in a group.

If this is a tagout procedure, did the inspector review with all *authorized* and affected employees their responsibilities under the procedure? ☐ Yes ☐ No ☐ Not applicable ☐

Note: A review can be accomplished by meeting with employees individually or in a group.

Electrical Safety

1.0 Electrical Cords

1. **Repairs and Usage –** Almost every construction operation uses extension cords and power tools within their shops and operations. There are some OHSA and OR-OSHA regulations you need to be aware of for their use and repair. It should be pointed out, however, that local electrical codes, if more stringent, may supersede some OHSA and/or OR-OSHA requirements.
    a.
2. **Electrical Cord Usage –** The following are highlights of the more common requirements for extension and power tool cords.
    a. Perhaps the most common violation found with extension and power tool cords is the lack of a grounding pin. This pin provides a low-resistance path to ground if a fault with the equipment occurs. Any cord lacking this pin should be immediately taken out of service and repaired or replaced.
    b. All extension, power tool, and temporary lighting cords are required to be designed for hard or extra hard usage. Some examples of these types are: SJ, SJO, SJT, SJTO (junior hard service cord) and S, SO, ST, STO (hard service cord).
    c. Flexible cords and cables should be protected from damage. Sharp corners and projections should be avoided. Flexible cords and cables may pass through doorways or other pinch points if protection is provided to avoid damage.
    d. Electrical cords are required to be rated for usage. In other words, cord sets made from Romex, flat cord, lamp cord, or other similar cord types are prohibited. Electrical boxes (normally used for mounting to studs) cannot be used with receptacles and cords to make an extension cord. Romex may be used for temporary lighting or similar duty if protected from physical damage.
3. **Electrical Cord Repair –** OSHA and OR-OSHA allow repairs to be made to electrical extension cords and power tool cords. The following are highlights of the more common requirements for extension and power tool cords.
    a. Electrical cords that have been cut through may be spliced by mechanical (compression) connectors, soldering, or brazing. The connector may be pre-insulated, or should be insulated with heat or cold shrink tubing or insulating tape. All insulation should be equal to or exceed the original insulation value. The spliced wires should then be insulated overall with shrink tubing or insulating tape the same thickness as the cord jacket.

Note: *Cords less than 12 gauges may not be allowed to be repaired. It may be necessary review OSHA and OR-OSHA interpretations.*

b. Replacement electrical cord ends are required to be grounded, three conductor types with a strain-relief connector (see picture 1). This is typically a two screw bracket with compress around a cord jacket. If the cord is likely to be used in wet locations, the cord ends need to be the rain-tight style.

c. Be careful when connecting electrical cord ends. The green (grounding) conductor should be connected to the ground pin, the white (neutral) conductor should be connected to the wider blade, and the black (hot) conductor should be connected to the narrower blade.

- (Picture 1)

2.0 Ground Fault Protection/Assured Equipment Grounding

1. **Scope –** The purpose of this procedure is to establish a standardized program for ground fault protection on all construction sites and to protect employees from the electrical hazards associated with 120-volt AC current. This program applies to all company and employee owned cord sets, receptacles, and cord and plug connected hand tools (not double insulated). All shall be tested and color coded. *References: NEC 305-6 (a), (b); CAL OSHA Title 8 2405.4; FED OSHA 1926.404 (b)*

2. **Policy –** All 120 V 60 hertz 15 and 20 ampere outlets on construction sites (which are not part of the building's permanent wiring) must be protected by the use of ground fault circuit interrupters (GFCI). All other electrical receptacles and cord sets not covered above must be protected by an assured grounding program.

3. **Responsibility –** The general foreman or foreman in charge of the job will be responsible for maintaining ground fault protection on the job site. The project superintendent or a designated representative will perform the required testing and complete the required documentation.

   a) **Procedure Ground Fault Circuit Interrupters (GFCIs) –** All 120-volt single phase 15 and 20-amp receptacle outlets on site, which are not part of the permanent wiring of the building or structure used by employees, must have approved GFCIs for personal protection.

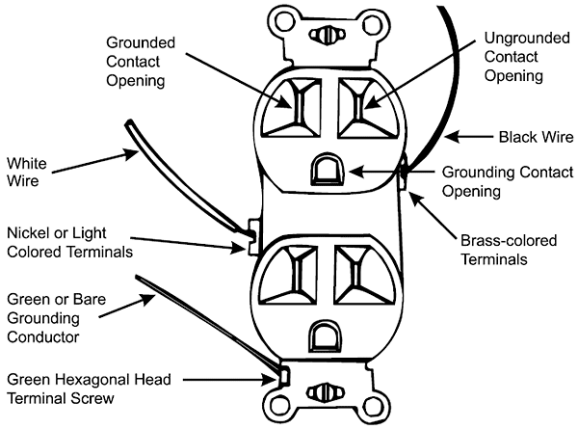
Special note: *Receptacles on a two wire single phase portable or vehicle mounted generator rated not more than 5 kW, where the circuit conductors are insulated from the generator frame and all other ground surfaces, need not be protected with GFCI.*

b) **Assured Equipment Grounding Conductor Program –** As an alternative to using GFCI protection on a construction site, the project superintendent may elect to institute an assured equipment grounding program. The program shall comply with the following minimum requirements:

1. This written description shall be made available at the site.
2. One or more competent persons will be designated to implement the program.
3. Each employee shall be instructed to visually inspect each cord and plug for external defects such as deformed or missing pins, internal damage, or insulation damage on a daily basis.

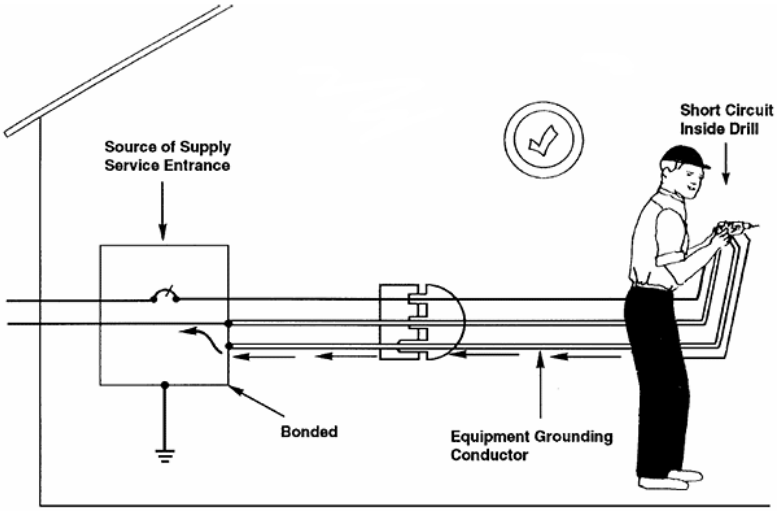
   Note: *All defective equipment will be tagged "Out of Service." If equipment is repaired, it must be tested prior to return to service by a designated employee.*
4. Extension cords and equipment will be tested by a competent worker as follows:
   i. Receptacle Tester – Utilize to show terminals are correctly connected to ground and wire is continuous, with no breaks. See Diagram 1, Picture 2, and Diagram 2.

Diagram 1



Picture 2

Diagram 2



ii. Continuity Tester – Utilize to assure ground is continuous from metal frame (a) through cord to third prong (b). Also touch tester to (c), then (d) prongs to detect possible ground fault. See Picture 3, Diagram 3, and Diagram 4.

Picture 3

D

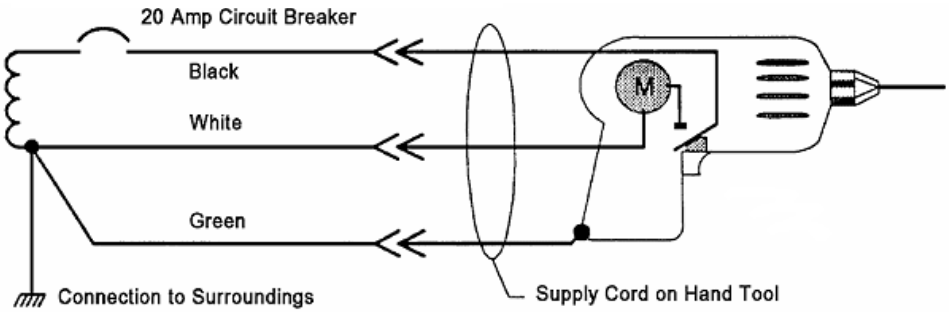
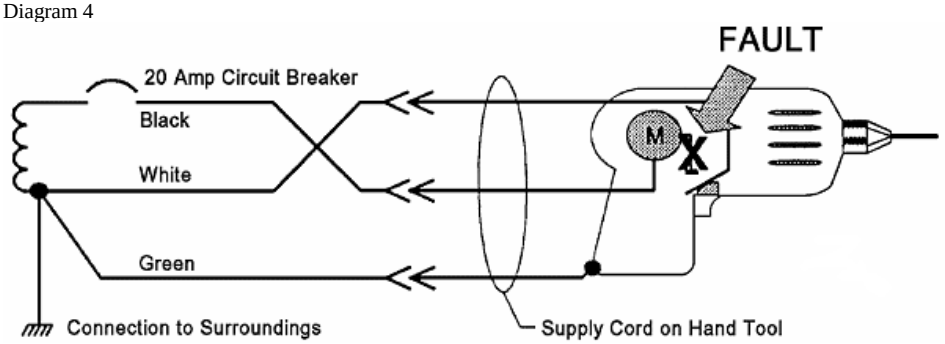


Diagram 4



Testing frequency:

i. Before initial use
ii. After any repair work
iii. When damage is suspected
iv. Every three months

5. Test records: The following color coding utilizing appropriate colored electrical tape will be placed on all cord sets:
   i. Jan. to March 31 – White
   ii. April to June 30 – Green
   iii. July to Sept. 30 – Red
   iv. April to June 30 – Green
   v. Oct. to Dec. 31 – Orange
   vi. Repair – Brown

   ***Note**: Be sure old tape is removed before new quarter of coding is applied.*

6. Temporary power spider boxes will be tested and logged utilizing a log tag, which includes date of inspection and initial of inspector. See Table 1.

Table 1

ID of Equipment Tested	Dated Tested	Action Taken, If Any	Tested By

7. Temporary power and lighting (light stringers, quartz light strands, temporary distribution racks, etc.) shall be visually inspected prior to use by a designated employee. A site assured grounding documentation log may be used when required by site contractors.

3.0 Additional Requirements

The decision to utilize GFCIs does not eliminate the need for many additional requirements for an assured equipment grounding program. Items 3.0 B 3, 4, and 5 are applicable even if GFCIs are used and if all equipment is a double insulated design.

4.0 Portable Powered Hand Tools

- Tools shall be inspected prior to use. Refer to manufacturer's recommendations for inspection guidelines.
- Power cords shall not be used for hoisting or lowering tools.
- Inspect the power cord; the tool must have three-prong grounding cord or double insulated case.
- Avoid working with powered tools in wet conditions. Assure cords are not lying in water.
- Remove damaged tools from service. Tag the damaged tool "Out of Service." Do not use the damaged tool until the tool has been properly repaired or replaced.

5.0 Materials Needed

☐ Complete kit

☐ GFCI tester

☐ Adapter for twist lock

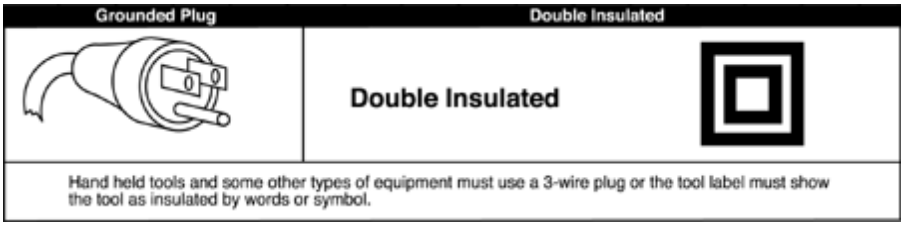
☐ Coding tape and poster

☐ Continuity tester

Electrical Safety

Ground-fault circuit interrupters (WAC 296-155-447)

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



Due to the dynamic, rugged nature of construction work, normal use of electrical equipment at our sites causes wear and tear that results in insulation breaks, short-circuits, and exposed wires. If there is no ground-fault protection, these can cause a ground-fault that sends current through the worker's body, resulting in electrical burns, explosions, fire, or death.

Policy

Absolute Comfort Technology, LLC is committed to protecting employees from electrical shock during construction activities. All 120-volt, single-phase, 15-ampere and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground fault circuit interrupters for personnel protection.

Testing
Follow manufacturers' recommended testing procedure to insure GFCI is working correctly. Use double-insulated tools and equipment, distinctively marked. Use tools and equipment according to the instructions included in their listing, labeling or certification. Visually inspect all electrical equipment before use. Remove from service any equipment with frayed cords, missing ground prongs or cracked tool casings. Apply a warning tag to any defective tool and do not use it until the problem has been corrected.

Employee Orientation and Safety Training

1.0 Welcome

Welcome to the Absolute Comfort Technology, LLC team! Our hope is that you find this a safe and satisfying place to work.

Safety is a vital element on every Absolute Comfort Technology, LLC project; our new hire safety orientation has been designed to get you started in the safest possible manner.

Orientation's goal is to:

- Improve morale
- Reduce turnover
- Create greater efficiency
- Cultivate the best work practices to create the safest and healthiest work environment

Before you actually handle materials and operate equipment, we will guide you through the facilities and jobsites, giving special attention to the areas in which you will work. We will explain and demonstrate how to properly and safely use the tools and equipment you will operate. The demonstrations and explanations will display the right way, the safe way, the only way to work!

It is a shared responsibility with you and your supervisor to make sure all items of the **New Employee Checklist** and the **Safety Orientation Checklist** that apply to your position are completed.

Please read and understand all of the material in this orientation.

2.0 Introduction

As a new employee of Absolute Comfort Technology, LLC, our employee orientation will help you understand and set the tone for safety on construction sites. Our industry recognizes that construction can be a potentially hazardous industry, and new employees are subject to work area hazards. Some employees are experienced in the construction industry while others may be new to the industry or new to the jobsite. The objective of the employee orientation is to inform all new employees of jobsite and general safety rules and procedures.

We want to eliminate accidents and cannot do this without your help. Most accidents are caused by people performing unsafe acts or people not properly conditioned to perform the necessary work.

A new employee can be defined as any person unfamiliar with a specific construction operation. The definition includes:

- Persons new to Absolute Comfort Technology, LLC
- Persons new to a particular jobsite

- Persons new to a particular crew
- Persons new to a particular task or process

Each new employee will be given an orientation that consists of forms that need to be reviewed and completed. Absolute Comfort Technology, LLC will explain much of the contents of this safety manual to the new employee. Generally, specific safety procedures are reviewed at this time, as well as, a basic safety video presentation (optional). You will be provided a hard hat, safety glasses, hearing protection, gloves, and whatever additional personal protective equipment (PPE) may be needed to safely perform your job. The new hire safety orientation is required of all new and returning employees.

After completion of the New Hire Orientation, the new employee will sign and date the **confirmation sheet.** Your manager/supervisor will also sign and date this sheet. This information will be placed in your personnel file.

All employees need to be aware that accidents cost time and money, but most importantly, they can cause unnecessary injury and severe personal loss. Absolute Comfort Technology, LLC is committed to achieving safety excellence. Our goal is zero injuries in the workplace.

3.0 Corporate/Company Management Commitment Letter

- Provided in this safety manual

4.0 Training and Safety Philosophy

Absolute Comfort Technology, LLC firmly believes that all accidents are preventable.

Avoid getting hurt:

- Never do a job that you are not qualified to do
- A clean jobsite is a safe jobsite
- Never run a piece of machinery you are not trained to operate
- Always ask your supervisor if you are not sure how to do a job
- Do the job right, not the quickest way you can think of
- Watch out for other people and machinery
- Recognize and correct hazards immediately
- Obey the safety rules of our customers; they are in place for a reason: your safety!
- Make suggestions to your supervisor on how to make your job a safer place to work
- Get the correct training

5.0 Orientation Topics

The following topics may be reviewed during your orientation:

- Employee duties
- Employer and supervisor duties
- Emergency evacuation procedures
- Discipline policy
- Drug and alcohol policy
- Return to work
- Sexual harassment policy
- Workplace violence policy
- General safety requirements and specific for Absolute Comfort Technology, LLC
- Accident reporting and accident Investigation procedures
- Electrical
- Fire safety
- Hazard communication/Globally Harmonized System of Classification and Labeling of Chemicals (GHS)
- Safety meetings
- Safety committee
- Back injury protection/personal work habits
- All other considerations such as fall protection, aerial lifts, forklifts, scaffolding, confined space, and lockout/tagout may be included.

6.0 Safe Work Rules

General safety rules:

- Report to work in good physical and alert mental condition.
- Wear the proper clothing for your job, including a shirt, work shoes, and long pants.
- The use or possession of intoxicating beverages or drugs on the job is prohibited. Reporting to work under the influence of alcohol or drugs is prohibited. The use of certain prescription drugs may

impair your performance on the job; please notify your supervisor when using prescription medications.

- Obey all special rules and instructions, caution or warning signs, and traffic laws.
- Understand your work assignment and make certain you are fully qualified for the job.
- Possession of firearms or weapons on company property or while in the care and control of the company is prohibited.
- Look for hazards, unsafe conditions, or practices, and report them immediately to your supervisor unless you can safely correct the condition and then report.
- Learn and follow the specific safety regulations which apply to your job. If you don't know or understand the regulations that apply to your job, ask your supervisor.
- Use the safety equipment and devices provided for your protection.
- Only operate and/or repair machinery, equipment, or electrical circuits if you are qualified and authorized to do so.
- Never enter any confined space such as a manhole, underground vault, tank, pipes, mixer drum, etc. unless you are qualified and authorized, and without first determining if there is adequate ventilation and that there are no flammable or toxic gases. Enter only with proper safety devices, such as a lifeline, and only with another person standing by to help if necessary.
- When lifting heavy or awkward objects, get help or use mechanical lifts available. If you must lift the object yourself, squat or kneel to lift the load. Use your leg muscles and keep the load close to your body.
- Keep work areas clean and free of debris and other hazards.
- Know where emergency equipment is located, such as fire extinguishers, first aid supplies, lifesaving equipment, etc. Report the use of any emergency equipment so it can be replaced.
- Report injuries to your supervisor immediately and obtain first aid or authorized medical treatment. If no treatment is required, the incident must be reported so an action plan can be developed to prevent future injuries.
- Disregard of safe work practices, any of these rules, or other safety instruction could be cause for termination of employment.

7.0 Housekeeping

- Keep work areas, ramps, platforms, access roads, or paths clear of debris, which creates tripping and fire hazards.
- Scrap or debris shall not be permitted to accumulate to such a degree that it endangers health or

causes a safety and/or health hazard.

- Materials should be stacked and stored away from foot traffic.
- Keep stairway and ladder access ways clear of debris.
- All flammable liquids must be stored in an appropriate approved safety cans.
- Clean up any spilled fuel or flammable liquids.
- Keep tools and materials in proper containers.

8.0 Personal Protective Equipment

- **Hardhats** are required at all times on all jobs. Additionally, hardhats are required while operating all equipment, including equipment equipped with a roll over protective structure (ROPS) and/or falling object protective structure (FOPS). Hardhats are not required in office areas, walking to and from vehicles into office areas, in autos and trucks, or construction equipment with fully enclosed cabs. This policy affects all employees, subcontractors, suppliers, and visitors. Modified or defective hardhats and bump caps are not acceptable.
- **Sturdy work shoes or boots** in good repair that cover the ankle are required at all times on all jobs and company property except in office areas. Sturdy work shoes or boots do not include athletic shoes, deck shoes, slippers, or casual footwear.
- **Eye and face protection** is worn when operations present eye or facial injury potential. This would include but is not limited to drilling operations, grinding, welding, cutting, and hammering.
- **High-visibility apparel** is required when you are working on foot and exposed to mobile equipment or vehicular traffic, including grade checkers, inspector, spotters, etc.
- **Respirators and filtering facepiece** (dust mask) may be required when there is exposure to harmful dust, fumes, vapors, or gases. Your supervisor will help you select the right respirator to protect you. Respirator use will be allowed only after you have been deemed medically capable to wear a respirator, fit-tested, and trained. Your supervisor must approve voluntary use.
- **Hearing protection** such as plugs or muffs is required when exposed to noise levels exceeding 85 decibels. In general, if shouting is needed to hear a conversation the Action Limit of 85 decibels is being approached or exceeded, and hearing protection should be utilized. Ask your supervisor.
- **Protective clothing, gloves, boots**, etc. is required when working with cement products, acids, or chemicals. Consult the Safety Data Sheet (SDS) for information on proper PPE requirements.

9.0 Machinery and Equipment

- Only operate, service, or repair machinery or equipment if you are qualified and authorized to do so. Forklifts may be operated by individuals who have been trained, tested, and certified by Absolute

Comfort Technology, LLC.

- Prior to operating power-driven equipment or vehicles, a walk-around safety inspection is required at the beginning each shift. Any defects affecting safety or proper operation must be reported to your supervisor immediately and repaired before the equipment is operated. Forklifts have an inspection checklist that must be filled out before use on any shift.
- Before starting machinery or putting equipment in motion, assure there will be no danger to other persons or property.
- Seat belts are required when operating motor vehicles or mobile equipment.
- Equipment operators are responsible for its safe operation. Operators must have knowledge of the safety regulations applicable to the equipment and its operation. If in doubt, ask your supervisor before proceeding.
- Never service or repair machinery or equipment while it is in motion. Only service or repair equipment if you are trained and authorized by the company to do so. Always lockout machinery or equipment being serviced to prevent injury.
- Use the stairs or ladder when mounting or dismounting equipment. Never jump off.
- Never ride any machinery, equipment, loads, or hooks unless approved safety devices designed for the purpose and are used.
- Equipment must never be operated within 10 feet or more of energized high voltage electrical lines.
- Stay outside the area within the swing radius of rotating machines such as cranes, shovels, excavators, or backhoes.
- Safely park, chock, and secure equipment before it is left unattended, even for short periods of time. Lower all cutting edges, blades, booms, buckets, scraper bowls, etc. to the ground and secure from possible movement. Remove the keys and take them with you if moving more than 25 feet away from the equipment.

10.0 Hand and Portable Electric Tools

- Use the appropriate tool for the job.
- Keep tools in good working condition. Do not use defective, dull, or damaged tools.
- Report any defective tools or equipment to your supervisor and remove from service.
- Machine guards and safety devices must be in place and functioning properly.
- Inspect electric cords, plugs, and receptacles before use and have them repaired or replaced if worn or damaged. Electric cords shall not be spliced and taped.

- All electric hand tools and exposed non-current-carrying parts of motors, generators (including portable), and control equipment shall be properly grounded.
- Power cords shall not be used to lift or lower portable electric tools.
- Disconnect tool from power source before changing drills, blades, or bits, or attempting repairs or adjustments.
- Never leave a power tool running unattended.

11.0 Lockout/Tagout

A lockout/tagout program has been developed for the safety and welfare of Absolute Comfort Technology, LLC employees and equipment. It is designed and used to ensure that the machine or equipment is isolated from all potentially hazardous energy, and locked out or tagged out before employees perform any servicing or maintenance activities where unexpected energizing start-up or release of stored energy could cause injury. This includes electric, air, spring, hydraulic pressure, steam, and chemical. **Lockout/tagout procedures shall be used only by employees who have been trained in lockout/tagout and are authorized and qualified to repair and maintain equipment.**

Note: Exceptions to the above are minor tool changes and adjustments, and other minor servicing. Activities which take place during normal production operations are not covered by this standard if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection.

12.0 Fall Protection

Fall protection will change from jobsite to jobsite. Fall restraint systems, fall arrest systems, or a combination may be used to protect from a fall hazard of six feet from level to level or greater or of no fall height. The following are a few examples and safe work rules for fall restraint and fall arrest systems.

- A warning line system can be used to provide fall protection on roofs with a sloop of 2-in-12 or less. The warning line system must be erected on all open sides of the work area and consist of stanchion posts with flagged wire, rope, or chain.
  - Access areas that are not in use should be blocked off with a chain, wire, rope, or other barricade.
  - Employees working outside of the warning line must be protected with a personal fall arrest system or a safety monitoring system.
  - Do not store material or use mechanical equipment outside the warning line.
- A safety monitoring system is a fall protection system where a competent person monitors workers and warns them when they are working in an unsafe manner or appear to be unaware of a fall hazard.
- Guardrail systems consist of a top rail at 42-inch-high (+/- 3 inches) and are capable of withstanding

a downward or outward force of 200 pounds without failure. The system also has a midrail at a minimum of 21 inches high and is capable of withstanding a downward or outward force of 150 pounds without failure.

- A personal arrest system consists of a full body harness, a lanyard, safety line, and an anchorage point.
  - Inspect fall arrest systems prior to use. Defective equipment should be taken out of service.
  - Fall arrest equipment should not be stored where it will be exposed to sunlight, rain, or extreme temperatures.
  - Avoid tying off around rough or sharp areas.
  - Always use locking snap hooks or D-rings.
  - When vertical lifelines are used, each person must be attached to a separate lifeline.
  - Never use any part of the fall arrest system for hoist materials.

13.0 Confined Space Entry

A confined space entry program has been developed for the safety and welfare of Absolute Comfort Technology, LLC employees. A confined space is any space which is (1) large enough and so configured that an employee can bodily enter and perform work, (2) has limited or restricted means of entry or exit, and (3) and is not designated for continuous employee occupancy. **Confined space entry procedures shall be used only by employees who have been trained in confined space entry and are authorized and qualified to enter the confined space.**

Attendants, entrants, entry supervisors, and anyone who may authorize entry should receive training in safe work practices for confined spaces and the provisions of this CSE program. Training shall be provided for all new employees, before an employee is assigned permit space duties, before there is a change in an employee's assigned duties, when there is a hazard for which the employee hasn't already been trained, when there are changes to the permit program, when the permit audit shows deficiencies, or whenever there is a deviation from the established procedures.

13.0 Scaffolding

A scaffolding program has been developed for the safety and welfare of Absolute Comfort Technology, LLC employees. **Scaffolding access and use shall be completed only by employees who have been trained and are authorized and qualified.**

14.0 Ladders

- All employees shall be trained in recognizing hazards related to ladders and stairways and to use proper procedures to minimize these hazards prior to using ladders and stairways.

- Portable ladder side rails should extend three feet above the landing surface and be secured at the top to prevent slipping.
- Inspect the ladder, rungs, and rails for any cracks, defects, or corroded materials. Any ladder found to have defects must be taken out of service and tagged “Do Not Use.”
- Do not use a ladder with missing or split rungs or rungs with grease, oil, or other slippery substance.
- Ascend and descend while facing the ladder.
- Do not exceed manufacturers intended weight load.
- The ladder base should be placed one foot away from the building for every four feet in height.
- Keep both hands free to hold the ladder. Do not carry anything up the ladder that could cause a fall.
- The area around the top of the ladder and the bottom must be kept clear for access and egress.

14.0 Fire and Flammable Materials

- All flammable liquids are to be stored only in approved containers labeled FLAMMABLE.
- Keep combustible waste materials picked up and discarded regularly (daily).
- Know the location and proper use of fire extinguishers and use only for firefighting. Fire extinguishers must be serviced after use.
- Use proper precautions when transferring fuel or refueling equipment. Stop motors, provide for grounding and bonding, do not smoke or allow open flame or any other source of ignition in the area, close containers, and eliminate any spillage.
- Oxygen and acetylene cylinders are to be secured upright, stored separately (at least 20 feet apart), and not near other combustible materials, particularly oil and grease.
- Never weld, burn, or cut any containers that have held flammable liquids unless they are filled with water or are completely cleaned, ventilated, and tested.
- Never use gasoline for cleaning purposes. Use only approved cleaning solvents, in well-ventilated areas.

15.0 Safety Meetings

Tailgate and toolbox safety meetings are held for your benefit. You are required to attend and encouraged to participate and offer suggestions for improving safe work conditions or practices.

16.0 Safety Committee

The Safety Committee is composed of management and employee representatives, usually two of each. The Safety Committee reviews safety and health issues, analyzes accident investigations, and recommends methods for improving the overall safety operations to top management. Each employee is an important member of the safety team. **We work together to prevent accidents.**

17.0 Back Injury Prevention

Back injuries are the most common and one of the most debilitating afflictions that an employee may experience. Most back injuries are caused by the cumulative stress from using poor lifting techniques, and other factors, such as fatigue and poor physical condition. Understanding and using proper lifting techniques and following these guidelines may help prevent many back injuries.

- Use equipment such as hoists, dollies, and forklifts to help with lifting.
- Stretch to loosen up and prepare your muscles for work.
- Check the weight of an object before you lift it.
- If the object is too heavy, ask for help.
- Firmly grasp the object you are lifting, and keep the object close to your body.
- Lift with your legs. Do not lift with your back.
- When turning move your feet. Do not twist your back.
- Make sure your path of travel is free of obstructions.

17.0 Medical Treatment

1. First Aid

- Know the location of first aid materials and obtain first aid for all injuries, no matter how minor.
- If you hold a current first aid card, such as one issued by the Red Cross or other certifying group, please let your supervisor know. You are encouraged to participate in any first aid training that may be made available to you.

2. Incident Reporting

All Incidents and near misses must be reported and documented in a timely manner.

All incidents will be reported as soon as possible to the employee's supervisor.

Any injury, no matter the level of severity, must be reported to the employee's supervisor on the day in which it occurred.

If an injury requires medical attention, provide medical support as trained and as planned for the project. Injuries requiring medical attention are to be reported by the foreman to the superintendent or project manager as soon as possible.

If an employee reports a minor injury that does not require medical attention, the foreman must document the employee's injury on an incident report and note the daily log.

During your employment with Absolute Comfort Technology, LLC you are covered by workers' compensation statutes for medical treatment and disability due to any injury suffered in the performance of your duties. Failure to comply with the following guidelines may result in corrective action up to and including termination.

- Report any work-connected injury or illness to your supervisor immediately (regardless of how minor it may appear to be).
- Obtain authorization from your supervisor (or other company rep) for medical treatment. You are encouraged to go to **Yakima Valley Memorial Hospital** as an initial contact. These physicians are best equipped and experienced to handle occupational injuries.
- Obtain prompt medical attention. Don't wait until it is convenient at a later date.
- Inform your supervisor if you are unable to return to work because of injury, with an estimate of the length of disability if possible.

  If you engage the services of a physician on your own without notifying your supervisor, you may be held responsible for payment of bills incurred and may jeopardize your eligibility for disability benefits.

New Employee Orientation Checklist

Employee Name: _____
Position: _____ Hire Date: _____
Department: _____ Supervisor: _____
Date(s) of Orientation: _____

Orientation	Supervisors Initials
☐ 1. Introduction to supervisor	_____
☐ 2. Facility and operations familiarization	_____
☐ 3. Review of safety program	_____
☐ 4. Review of safety regulations	_____
☐ 5. Review of performance appraisal policy	_____
☐ 6. Review of general safety rules	_____
☐ 7. Review of probationary policy	_____
☐ 8. Review of disciplinary policy	_____
☐ 9. Review of first aid and emergency medical procedures	_____
☐ 10. Review of emergency response notification	_____
☐ 11. Review of fire fighting and evacuation procedures	_____
☐ 12. Review of accident reporting policy	_____
☐ 13. Review of safe operating procedures	_____
☐ 14. Review of specific equipment to be used	_____
☐ 15. Review of specific operations	_____
☐ 16. Review of safe lifting techniques	_____
☐ 17. Required regulatory training conducted (see attachment)	_____
☐ 18. Job-specific training provided, including high risk task descriptions	_____
☐ 19. Other: _____	_____

_____ _____
Immediate Supervisor Date

Safety Pledge: By my signature, I am declaring that I have completed the above orientation process with my supervisor and that I understand my responsibilities toward the safety and health of myself and my coworkers. I have received copies of ___ ___ policies for my future reference.

NEW EMPLOYEE ORIENTATION CHECKLIST

Employee's Name:	SSA#:
Job Title:	Date of Hire:

The information checked below has been given or explained to the employee by the Personnel Department or a manager/supervisor.

COMPENSATION AND BENEFITS			
	Time sheet/card		Performance Evaluations
	Payroll Procedures		Promotions
	Insurance Program Booklet		Transfers
	Pension Plan Booklet		Vacations
	Educational Assistance		Holidays
	Credit Union		Absences/Tardiness
	Stock Purchase Plan		Jury Duty
	Savings Bond Plan		Leaves of Absence
	Sick Benefits—Limitations, etc.		Maternity Leave/FMLA Leave
GENERAL			
	Mission Statement		Ethics Statement
	Employee Handbook/Labor		Introduction to Security Guards
	Agreement/Rules Booklet		Transportation
	Disciplinary Procedures		Parking Facilities
	Dress Code/Safety Requirements		Safety Booklet
	Complaints, Discrimination		First Aid/Reporting Injuries
	Grievance Procedures		Bulletin Board/Company Newsletter
	Proprietary Information		Voluntary Resignation Notice
	Agreement		I.D. Card

Employee Responsibilities

1. Comply with all construction safety rules and regulations as instructed. Failure to follow required policies may be cause for termination
    a. Carefully read the list of operational policies and worksite safety rules and provided in the New Employee Handbook
    b. Sign the New Employee Orientation Checklist after all items have been reviewed by your supervisor
    c. Read and sign the Right-To-Know training record following instruction
2. Use personal protective equipment as required at all times
    a. Required PPE is specified on the list of worksite safety rules
    b. PPE is provided by the company and stored at the office.
    c. Defective or unsafe equipment should be reported to the foremen.
3. Operate only equipment you are qualified, cleared or licensed to operate
4. IMMEDIATELY REPORT potential safety or health hazards, either to workers or the public, to the nearest supervisor. Correct hazards as soon as possible.
    a. If another contractor's employees create a health or safety hazard through their work operations or chosen behavior, report this condition to (1) your employer, (2) the other contractor, (3) the Dept. of Labor and Industries, (4) the union, if applicable, in order to either correct the situation or change the work schedule so that the hazard is avoided.
5. IMMEDIATELY REPORT all on-the-job injuries to the Foremen, whether or not medical treatment or time loss is involved.
    a. Fully describe the accident on a company accident report form, including perceived causes and the names of witnesses.
    b. Following visits to the doctor for an industrial injury or illness, a "Doctor's Release for Work" must be returned to the superintendent.
    c. When off work on a time-loss injury, report recovery progress to the Claims Coordinator on a weekly basis, unless otherwise directed.
    d. Should employees experience problems with their recovery, be dissatisfied with the treatment practitioners or need help understanding the industrial insurance system, assistance, written information or support is available at the office
6. Employees are expected to accept temporary, modified duty if offered, provided the specific physical limitations or work have been approved by their doctor.

Excavations, Trenching, and Shoring

1.0 Introduction

Trenching, excavation, and shoring work can be dangerous. According to the Bureau of Labor Statistics, approximately 25 workers are killed and over 600 injured in trench related cave-ins annually. Over 42% of those fatalities occurred in companies with 10 or fewer employees. A competent person was not onsite 86% of the time when the fatality occurred. Fifty eight percent of the victims were killed while installing pipe. These deaths are tragic, yet they were all foreseeable and preventable. Absolute Comfort Technology, LLC knows employees entering excavations must be properly trained and protected from cave-ins, hazardous atmospheres, and falling objects. We have implemented this Excavation, Trenching, and Shoring program to protect the safety and health of our employees.

2.0 Responsibility

2. Employer

- Monitor the overall effectiveness of this program
- Ensure atmospheric testing and equipment is available
- Provide appropriate personal protective equipment (PPE)
- Provide appropriate protective systems
- Provide training to affected employees and supervisors
- Provide technical assistance as needed
- Review and update this program on an annual basis

3. Safety Director

- Ensure required inspections, tests, and recordkeeping functions have been performed by completing program audits
- Monitor the overall effectiveness of this program
- Assist with atmospheric testing and equipment selection as needed
- Provide appropriate personal protective equipment (PPE)
- Provide training for supervisors and affected employees
- Provide technical assistance
- Review and update the program on an annual basis or more frequently if needed

3. **Competent Person**

   One who has been trained and is capable of identifying hazards or working conditions that are unsafe for employees in the workplace, and who has the authority to correct these hazards.

   - Complete inspections of excavations for evidence of a situation that could result in possible cave-ins, failure of protective systems, hazardous atmospheres, or other hazardous conditions by inspecting:
     - Adjacent areas
     - Protective systems
   - Complete inspections daily and as situations warrant:
     - Prior to the start of work
     - As needed throughout the shift
     - After every rainstorm
     - Other hazard-increasing occurrences

       (These inspections are only required when employee exposure can be reasonably anticipated.)
   - Knowledgeable about soil analysis
   - Knowledgeable about trenching and excavation protective systems
   - Knowledgeable about the requirements of Division 3, Subpart P, Excavation Standard

4. **Supervisor**

   - The supervisor also may be the competent person.
   - Coordinate and actively participate in training of departmental employees.
   - Ensure jobsite conditions are safe for employees to work in excavations.
   - Determine the means of protection (sloping back the sides of the excavation, use of trench shields, or shoring) that will be used for each excavation project
   - Ensure the design of a protective system has been completed and approved by a registered professional engineer, when required, prior to working in an excavation.
   - Ensure tabulated data for protective systems are in written form at the jobsite during construction.

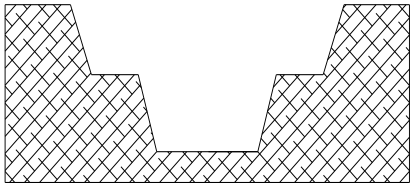
5. **Employee**

   - Comply with the requirements of this program

- Participate in training
- Wear appropriate PPE
- Report hazardous practices or situations to your supervisor or management
- Report incidents that cause injury to yourself or other employees to your supervisor or management.

3.0 Definitions

- **Accepted engineering practices**: the standards of practice required by a registered professional engineer
- **Aluminum hydraulic shoring**: a manufactured shoring system consisting of aluminum hydraulic cylinders (cross braces) used with vertical rails (uprights) or horizontal rails (wales). This system is designed to support the sidewalls of an excavation and prevent cave-ins.
- **Bell-bottom pier hole**: a type of shaft or footing excavation, the bottom of which is made larger than the cross section above to form a belled shape
- **Benching (benching system)**: a method of protecting employees from cave-ins by excavating the sides of an excavation to form one or more horizontal steps, usually with vertical or near-vertical surfaces between levels



Benching System

- **Cave-in**: the movement of soil or rock into an excavation, or the loss of soil from under a trench shield or support system, in amounts large enough to bury, or injure and immobilize a person trap,
- **Competent person**: one who has been trained to identify hazards or working conditions in the workplace that are unsafe for employees, and who has the authority to have these hazards corrected
- **Cross braces**: the horizontal members of a shoring system installed from side to side of the excavation. The cross braces bear against either uprights or wales.
- **Excavation**: any man-made cut, cavity, trench, or depression in an earth surface formed by earth removal
- **Faces or sides**: the vertical or inclined earth surfaces formed as a result of excavation work
- **Failure**: the movement or damage of a structural member or connection that makes it unable to support loads

- **Hazardous atmosphere**: an atmosphere that is explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful that may cause death, illness, or injury
- **Protective system**: a method of protecting employees from cave-ins, from material that could fall or roll from an excavation face into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection
- **Ramp**: an inclined walking or working surface that is used to gain access to one point from another. A ramp may be constructed from earth or from structural materials such as steel or wood.
- **Sheeting**: the members of a shoring system that retain the earth in position and in turn are supported by other members of the shoring system
- **Shield (shield system)**: a structure used in an excavation to withstand cave-ins and protect employees working within the shield system. Shields can be permanent structures or portable units moved along as work progresses. Shields used in trenches are usually referred to as "trench boxes" or "trench shields."
- **Shoring (shoring system)**: a structure that is built or put in place to support the sides of an excavation to prevent cave-ins
- **Sloping (sloping system)**: sloping the sides of the excavation away from the excavation to protect employees from cave-ins. The required slope will vary with soil type, weather, and surface or near surface loads that may affect the soil in the area of the trench (such as adjacent buildings, vehicles near the edge of the trench, etc.).
- **Stable rock**: natural solid mineral material that can be excavated with vertical sides that will remain intact while exposed
- **Support system**: a structure such as underpinning, bracing, or shoring, that provides support to an adjacent structure, underground installation, or the sides of an excavation
- **Tabulated data**: tables and charts approved by a registered professional engineer and used to design and construct a protective system
- **Trench (trench excavation)**: a narrow excavation (in relation to its length) made below the surface of the ground
- **Uprights**: the vertical members of a trench shoring system placed in contact with the earth and usually positioned so that individual members do not contact each other. Uprights placed so that individual members are closely spaced, in contact with, or interconnected to each other are often called "sheeting."

- **Wales**: the horizontal members of a shoring system placed in the direction of the excavation face whose sides bear against the vertical members of the shoring system or earth (the uprights or sheeting)

4.0 Training

1. Training Requirements

- Personnel involved in trenching and/or excavation work will be trained in the requirements of this program.
- Training will be provided prior to employees entering and/or being assigned duties in excavations.
- Retraining is required and will be provided when jobsite inspections indicate an employee does not have the knowledge and/or skills to safely perform excavation work or when changes are made to this program.
- Training records will be maintained by _____. The training record will include:
  a. Date of the training program
  b. Name of the instructor who conducted the training
  c. Name of the employee who received the training

2. Training Items

Training provided to all personnel who perform work in excavations will include:

- Work practices to be followed during excavating and/or working in excavations
- Use of PPE typically required during excavation work. The typical PPE includes but is not limited to safety shoes, hardhats, and fall protection devices.
- Procedures to be followed when a hazardous atmosphere exists or could reasonably be expected to develop during work in an excavation
- The OR-OSHA Excavation Standard, 29 CFR 1926.650, Subpart P; WAC 296-155-650 Subpart N; OSHA Excavation Standard, 29 CFR 1926.650, Subpart P, or applicable jurisdiction
- Emergency and non-entry rescue procedures

5.0 Excavation Requirements

1. Utilities and jobsite inspection prior to excavation entry will be completed by the competent person to determine necessary safety measures.

2. Surface encumbrances including, but not limited to, equipment, materials, supplies, permanent installations (i.e., buildings or roadways), trees, brush, boulders, and other objects at the surface that could present a hazard to employees working in the excavation will be removed or supported to protect all employees.
3. Underground installations that may be encountered during excavation work will be located and marked prior to opening an excavation. This includes the location of sewer, telephone, fuel, electric, water, or any other underground installations or wires. Arrangements will be made as needed by the competent person, superintendent, or project manager with the appropriate utility entity for the protection, removal, shutdown, or relocation of underground installations.
    - When it is not possible to establish the exact location of utility installations, the work may proceed with caution if detection equipment or other safe and acceptable means are used to locate the utility.
    - Excavation will be done in a manner not to endanger the underground installations or the employees engaged in the work. Utilities left in place will be protected by barricades, shoring, suspension, or other means necessary to properly protect employees.
4. Protection of the public will be provided as necessary prior to the start of excavation operations. Such protection may include barricades, walkways, lighting, and postings.
    - Guardrails, fences, and/or barricades will be provided for excavations adjacent to walkways, driveways, and other pedestrian or vehicle thoroughfares. Warning lights or other illumination will be maintained as needed for the safety of the public and employees from sunset to sunrise.
    - Wells, holes, pits, shafts, and all similar hazardous excavations will be effectively barricaded or covered, and appropriate signage posted as necessary to prevent unauthorized access. Temporary excavations of this nature will be backfilled as soon as possible.
    - Walkways or bridges with standard guardrails will be provided where **employees and the general public** are permitted to cross over excavations. Workers in the excavation exposed to falling objects from walkways or bridges will be protected by toe boards or other effective protection to prevent the hazard of falling objects.
5. Protection of employees by stairs, ladders, or ramps will be provided at excavation sites where employees are required to enter trench excavations over four feet deep. Ladders will be placed so the maximum distance of lateral travel (along the length of the trench) to reach the egress does not exceed 25 feet.
6. Employees exposed to vehicular traffic will be provided with high-visibility vests or other suitable high-visibility garments marked with or made of reflectorized material. Warning vests worn by flaggers will be yellow or orange, made of reflectorized material when worn during night work, and must comply with the 2009 Manual on Uniform Traffic Control Devices (MUTCD). Emergency lighting, such as spotlights or portable lights, will be provided as needed to safely perform work.

7. Exposure to falling loads will be prevented by never allowing an employee underneath loads being handled by lifting or digging equipment. Employees are required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials.
8. A warning system will be used when mobile equipment is operated adjacent to the edge of an excavation and the operator does not have a clear and/or direct view of the edge of the excavation. The warning system may consist of barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.
9. Hazardous atmospheres may occur in excavations, for example, in an excavation in landfill areas, near running vehicles, areas where hazardous substances are stored nearby, near containing gas pipelines, etc.
    - Adequate precautions will be taken to prevent employee exposure to atmospheres containing less than 19.5 percent oxygen and other hazardous atmospheres. This may include ventilation or supplied air-line respirators.
    - Ensure life lines are being used when the potential for hazardous atmospheres exist.
    - When hazardous atmospheres exist or are expected, means for summoning rescue personnel shall be immediately available on site. Your rescue plan cannot be simply calling 911. Special attention must be given to this consideration when working after normal business hours.
    - If a hazardous atmosphere is detected, do not enter the trench. If employees are in the excavation when a hazardous atmosphere is detected, all employees shall be ordered out of the excavation.
    - Contact the competent person or superintendent.
10. Personal protective equipment (PPE) will be provided to all employees working in trenches and/or excavations. Employees working in trenches and/or excavations will wear hardhats and appropriate work boots. Eye and face protection, hearing protection, hand protection, or other PPE may be utilized to protect from associated hazards as needed.
11. Walkways and guardrails will be provided when **employees or equipment** are permitted to cross over excavations. Guardrails will be provided on walkways, **accessible only to jobsite personnel**, and are six feet or more above lower levels.
12. Protection from water accumulation hazards will be provided in excavation operations. Employees are not permitted to work in excavations that contain or are accumulating water unless appropriate precautions are taken to protect employees from hazards. Precautions may include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of safety harnesses and lifelines.
    - The use of water removal equipment and operation will be monitored by the competent person. When an excavation interrupts the natural drainage of surface water (such as streams), diversion

ditches, dikes, or other suitable means will be used to prevent surface water from entering the excavation.

- Excavations exposed to runoff from heavy rain require inspection by the competent person.

13. Weather conditions require attention. Changes in weather affect the amount of pressure exerted by the soil onto the walls of the trench. When soils become saturated with water, the pressure increases due to added weight. However, as soil dries, it may lose some of its cohesive properties which can result in structural failure of the trench's walls.
14. Stability of adjacent structures will be maintained; the competent person will determine if the excavation work could affect the stability of adjoining buildings, walls, sidewalks, or other structures.
    - Support systems (such as shoring, bracing, or underpinning) will be used to ensure the stability of structures and the protection of employees.
    - Sidewalks, pavements, and structures will not be undermined unless a support system is provided to protect employees and structures from possible collapse.
15. Protection from falling objects and loose rocks or soil will be provided to employees working in excavations and/or trenches. Employees will be protected from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection will consist of:
    - Removal of loose debris on the edge of the trench
    - Installation of protective barricades, such as wire mesh or timber
    - Benching sufficient to contain falling material
16. Daily inspection will be conducted by the competent person prior to employees entering the excavation. The competent person will inspect the excavations, adjacent areas, and protective systems for evidence of a situation that could result in cave-ins, failure of protective systems, hazardous atmospheres, or other hazardous conditions. The inspections will be conducted by the competent person as needed throughout the shift. Inspections will be completed after every rainstorm or other hazard-increasing occurrence. These inspections are only required when the trench will be or is occupied by employees.

    When the competent person finds evidence of a situation that may result in a possible cave-in, failure of protective systems, hazardous atmosphere, or other hazardous conditions, exposed employees will be removed from the hazardous area until precautions are taken to ensure employee safety.

    The competent person will maintain a written log of all inspections conducted. This log shall include the date, work site location, results of the inspection, and a summary of any action taken to correct existing hazards.

6.0 Requirements for Protective Systems

1. Protection of Employees in Excavations

Employees in an excavation shall be protected from cave-ins by using either an adequate sloping or benching system or an adequate support or protective system. The only exceptions are:

- Excavations made entirely in stable rock
- Excavations less than five feet (four feet in Washington) in depth where examination of the ground by the competent person provides no indication of a potential cave-in.

Protective systems shall be capable of resisting all loads that could reasonably be expected to be applied to the system.

2. Design of Sloping and Benching Systems

The slope and configuration of sloping and benching systems shall be selected and/or constructed by or under the direction of the competent person as follows:

a. Option 1: Allowable configurations and slopes

- Excavations shall be sloped at an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal), unless the competent person uses one of the other options listed below.
- The slopes used shall be excavated in accordance with the slopes shown for Type C soil. Refer to 1926 Subpart P Appendix A.

b. Option 2: Maximum allowable slopes and allowable configurations for sloping and benching systems will meet the requirements as stated in 1926 Subpart P Appendix A and B.

c. Option 3: Designs using other tabulated data

- The design of sloping or benching systems may be selected from and will be constructed in accordance with other tabulated data, such as tables and charts. The tabulated data used must be in written form and include all of the following:
    1. Identification of the factors that affect the selection of a sloping or benching system
    2. Identification of the limits of use of the data, including the maximum height and the angle of the slopes determined to be safe
    3. Other information needed by the user to make correct selection of a protective system
- One copy of the tabulated data that identifies the registered professional engineer who approved the data shall be maintained at the job site during construction of the protective system. After that time the data may be stored off the job site, but a copy of the data shall be made available to the compliance officer upon request.

d. Option 4: Design by a registered professional engineer: Sloping and benching systems not utilizing Option 1, Option 2, or Option 3 under this section will be approved by a registered professional engineer.

- Designs will be in written form and will include at least the following:
    1. The maximum height and angle of the slopes that were determined to be safe for the particular project
    2. The identity of the registered professional engineer approving the design
- At least one copy of the design shall be maintained at the job site while the slope is being constructed. After that time the design need not be at the job site, but a copy shall be made available to a compliance officer upon request.

3. The design of support systems, shield systems, and other protective systems shall be selected and/or constructed by or under the direction of the competent person with the requirements of the applicable following:

a. Option 1: Designs using 1926 Subpart P Appendix A, C, and D. Design of timber shoring in trenches will meet the requirements as stated in 1926 Subpart P Appendix C. Design of aluminum hydraulic shoring shall be in strict compliance with manufacture's specifications and tabulated data, but if manufacturer's tabulated data cannot be used, then designs will be in accordance with 1926 Subpart P Appendix D.

b. Option 2: Designs using manufacturer's tabulated data

- Support systems, shield systems, or other protective systems drawn from manufacturer's tabulated data will be constructed and used in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.
- Deviation from the specifications, recommendations, and limitations issued or made by the manufacturer will only be allowed after the manufacturer issues specific **written** approval.
- Manufacturer's specifications, recommendations, limitations, and manufacturer's approval to deviate from the specifications, recommendations, and limitations will be kept in written form at the job site during construction and use of the protective system. After that time this data may be stored off the job site; a copy will be made available to the compliance officer upon request.

c. Option 3: Designs using other tabulated data

- Designs of support systems, shield systems, or other protective systems will be selected from and be constructed in accordance with tabulated data, such as tables and charts.
- The tabulated data shall be in written form and include all of the following:

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

- One copy of the tabulated data that identifies the registered professional engineer who approved the data shall be maintained at the job site during construction of the protective system. After that time the data may be stored off the job site, but a copy of the data shall be made available to a compliance officer upon request.

d. Option 4: Design by a registered professional engineer

- Support systems, shield systems, and other protective systems not using the prior options a registered professional engineer will approve
- Designs will be in written form and will include the following:
  1. A plan indicating the sizes, types, and configurations of the materials to be used in the protective system
  2. The identity of the registered professional engineer approving the design
- At least one copy of the design shall be maintained at the job site while the slope is being constructed. After that time the design need not be at the job site, but a copy shall be made available to the compliance officer upon request.

4. Materials and Equipment

a. Materials and equipment used for protective systems will be inspected and free from damage or defects that might affect their proper function.

b. Manufactured materials and equipment used for protective systems will be used and maintained in accordance with the recommendations of the manufacturer, and in a manner that will prevent employee exposure to hazards.

c. When materials and/or equipment used for protective systems are damaged, the competent person will evaluate suitability for continued use. If the competent person cannot ensure the material or equipment is able to support the intended loads or is otherwise suitable for safe use, the materials and/or equipment will be removed from service until they can be evaluated and approved by a registered professional engineer before being returned to service.

5. Installation and Removal of Support

a. General

- Members of support systems will be securely connected together to prevent sliding, falling, kickouts, or other potential hazards.
- Support systems will be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.
- Individual members of support systems will not be subjected to loads exceeding those they were designed to support.
- Before temporary removal of individual support members begins, additional precautions will be taken as directed by the competent person, superintendent, and/or project manager to ensure the safety of employees.
- Removal of support systems will begin at, and progress from, the bottom of the excavation. Members will be released slowly. If there is any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation, the work will be halted until the competent person can properly inspect it.
- Backfilling will progress together with the removal of support systems from excavations.

6. Shield Systems

a. General

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

Guide for Daily Inspection of Trenches and Excavations

Project:		Date:	Weather:	Soil Type:
Trench Depth:	Length:	Width:	Type of Protective System:	

Yes	No	N/A	Excavation
			Excavations and protective systems inspected by competent person daily, before start of work
			Competent person has authority to remove workers from excavation immediately
			Surface encumbrances supported or removed
			Employees protected from loose rock or soil
			Hard hats worn by all employees
			Spoils, materials, and equipment set back a minimum of two feet from edge of excavation
			Barriers provided at all remote excavations, wells, pits, shafts, etc.
			Walkways and bridges over excavations six feet or more in depth equipped with guardrails
			Warning vests or other highly visible PPE provided and worn by all employees exposed to vehicular traffic
			Employees prohibited from working or walking under suspended loads
			Employees prohibited from working on faces of sloped or benched excavations above other employees
			Warning system established and used when mobile equipment is operating near edge of excavation
Yes	**No**	**N/A**	**Utilities**
			Utility companies contacted and/or utilities located
			Exact location of utilities marked when near excavation
			Underground installations protected, supported, or removed when excavation is open
Yes	**No**	**N/A**	**Wet Conditions**
			Precautions taken to protect employees from accumulation of water
			Water removal equipment monitored by competent person
			Surface water controlled or diverted
			Inspection made after each rainstorm
Yes	**No**	**N/A**	**Hazardous Atmosphere**
			Atmosphere tested when there is a possibility of oxygen deficiency or build-up of hazardous gases
			Oxygen content is between 19.5% and 21%

			Ventilation provided to prevent flammable gas build-up to 20% of lower explosive limit of the gas
			Testing conducted to ensure that atmosphere remains safe
			Emergency response equipment readily available where a hazardous atmosphere could or does exist
			Employees trained in the use of personal protective and emergency response equipment
			Safety harness and lifeline individually attended when employees enter deep confined excavation
Signature of Competent Person, Date			

Fall Protection and Walking Working Surfaces

1.0 Introduction

Approximately 40% of fatal injuries in the construction industry are due to falls. At Absolute Comfort Technology, LLC, we feel this is unacceptable. The purpose of this fall protection and walking working surfaces program is to protect the safety and health of all employees and properly train and evaluate employees who are performing work where fall hazards exist.

2.0 Responsibilities

1. Management

Management is responsible for the administration of this program and will audit and make changes when necessary to ensure success of the program.

2. Program Administrator/Safety Director

a. Develop specific policies and procedures pertaining to fall protection and walking working surfaces

b. Implement a training program based on the general principles of fall protection and walking working surfaces

c. Coordinate the training for fall protection and walking working surfaces

d. Maintain the training certification records of employee training sessions

e. Review the effectiveness of the program

3. Supervisors

a. Ensure that employees have received appropriate training at their jobsites

b. Provide observations and feedback to employees to ensure jobsite safety

c. Ensure that fall protection equipment is properly inspected and maintained in a safe operating condition

d. Provide program feedback to the safety director

4. Employees

a. Utilizing personal fall arrest systems (PFAS) or other fall protection equipment on which they have been specifically trained and authorized

b. Work in a safe manner and utilize safe work practices

c. Inspect the fall protection equipment at the beginning of day or prior to each work shift

d. Report all equipment defects to supervisors immediately

e. Wear appropriate personal protective equipment

f. Notify supervisor of jobsite conditions where safety hazards exist

3.0 Definitions

1. **Anchorage**: a secure point of attachment for lifelines, lanyards, or deceleration devices
2. **Body belt**: a strap that is secured around the waist and attached to a lanyard, lifeline. Used for positioning only.
3. **Body harness**: straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders; it is attached to other components of a personal fall arrest system
4. **Competent person**: a person who is capable of identifying hazardous or dangerous conditions in any personal fall arrest system or any component thereof, as well as in their application and use with related equipment
5. **Connector**: a device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabiner, or it may be an integral component of part of the system.
6. **Deceleration device**: any mechanism with a maximum length of 3.5 feet, such as a rope grab, rip stitch lanyard, tearing or deforming lanyards, self-retracting lifelines, etc., which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.
7. **Energy shock absorber**: a device that limits shock-load forces on the body
8. **Failure**: load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.
9. **Fall arrest system**: a system specifically designed to secure, suspend, or assist in retrieving a worker in or from a hazardous work area. The basic components of a fall arrest system include anchorage, anchorage connector, lanyard, shock absorber, harness, and self-locking snap hook.
10. **Free fall**: the act of falling before a personal fall arrest system begins to apply force to arrest the fall
11. **Free fall distance**: the vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall (maximum of six feet). This distance excludes deceleration distance and

lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

12. **Hole**: a gap or void two inches or more in its least dimension, in a floor, roof, or other walking/working surface
13. **Lanyard**: a flexible line of rope, wire rope, or strap that generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline, or anchorage
14. **Leading edge**: the edge of a floor roof, formwork for a floor, or other walking/working surface that changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an unprotected side and edge during periods when it is not actively and continuously under construction.
15. **Lifeline**: a component consisting of a flexible line for connection to an anchorage at one end to hang vertically or for connection to anchorages at both ends to stretch horizontally and that connects other components of a personal fall arrest system to the anchorage
16. **Opening**: a gap or void 30 inches or higher and 18 inches or wider in a wall or partition, through which employees can fall to a lower level.
17. **Personal fall arrest system**: a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness, and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.
18. **Positioning device system**: a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and to work with both hands free while leaning
19. **Qualified person**: one with a recognized degree or professional certificate and extensive knowledge and experience in the subject field who is capable of design, analysis, evaluation, and specifications in the subject work, project, or product
20. **Retractable fall limiter**: a fall arrest device that allows free travel without slack rope, but locks instantly when a fall begins
21. **Rope grab**: a deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks to arrest the fall of an individual. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.
22. **Safety-monitoring system**: a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards for roofing work only
23. **Self-retracting fall limiter/lanyard**: a deceleration device containing a drum-wound line that can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and that, after onset of a fall, automatically locks the drum and arrests the fall.

24. **Snap hook**: a connector comprised of a hook-shaped member with a double-locking mechanism that includes a self-closing, self-locking keeper that remains closed and locked until unlocked and pressed open for connection or disconnection
25. **Toe board**: a low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel
26. **Walking/working surface**: any surface, whether horizontal or vertical, on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork, and concrete reinforcing steel, but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.
27. **Warning line system**: a barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, and that designates an area where fall arrest equipment is required
28. **Work area**: that portion of a walking/working surface where job duties are being performed

4.0 Fall Protection Systems

1. Covers

- All covers will be secured to prevent accidental displacement.
- Covers will be marked with "HOLE" or "COVER."
- Covers located in roadways will be capable of supporting twice the axle load of the largest vehicle that might cross them.
- Covers will be capable of supporting twice the weight of employees, equipment, and materials that may cross them.

2. Guardrail Systems

Guardrail systems will be erected at unprotected edges, ramps, runways, and/or holes to protect employees from hazards. The following are the specifications for the erection of guardrail systems.

a. Top rails will be:

- At least ¼ inch in diameter (steel or plastic banding is unacceptable)
- Flagged every six feet or less with a high visibility material if wire rope is used
- Inspected by competent person as frequently as necessary to ensure strength and stability
- Forty-two inches (plus or minus three inches) above the walking/ working level
- Capable of withstanding at least 200 pounds of force applied in any direction on the top rail without failure
- Adjusted to accommodate the height of stilts, if they are in use

b. Midrails will be:
   - Constructed of screens, mesh, intermediate vertical members, and/or solid panels
   - A minimum of 21 inches high
   - Capable of withstanding at least 150 pounds of force applied in any direction on the midrail without failure

c. Gates or removable guardrail sections are to be placed across openings of hoisting areas or holes when they are not in use to prevent access.

3. Personal Fall Arrest Systems (PFAS)

a. Personal fall arrest systems will be issued to and used by employees as determined by the competent person and/or qualified person, and may consist of anchorage, connectors, body harness, deceleration device, lifeline, and/or suitable combinations. Personal fall arrest systems will:
   - Limit the maximum arresting force to 1,800 pounds
   - Be rigged so an employee cannot free fall more than six feet or contact any lower level
   - Bring an employee to a complete stop and limit the maximum deceleration distance traveled to 3½ feet
   - Be inspected prior to each use for damage and deterioration
   - Be removed from service if any damaged components are detected

b. All components of a fall arrest system will meet the specifications of the OR-OSHA Fall Protection Standard or other regulating entity, and will be used in accordance with the manufacturer's instructions and specifications.
   - Do not use non-locking snap hooks
   - D-rings and locking snap hooks will:
     - Have a minimum tensile strength of 5,000 pounds
     - Be proof-tested to a minimum tensile load of 3,600 pounds without cracking, breaking, or suffering permanent deformation
   - Lifelines will be:
     - Designed, installed, and used under the supervision of a qualified person
     - Protected from cuts and abrasions

- Self-retracting lifelines and lanyards must have ropes and straps (webbing) made of synthetic fibers, and will:
    - Sustain a minimum tensile load of 3,600 pounds if they automatically limit free fall distance to two feet
    - Sustain a minimum tensile load of 5,000 pounds (includes rip stitch, tearing, and deforming lanyards)
- Anchorages must support at least 5,000 pounds per person attached and will be:
    - Designed, installed, and used under the supervision of a qualified person
    - Capable of supporting twice the weight expected to be imposed on it
    - Independent of any anchorage used to support or suspend platforms.

4. Personal Fall Restraint Systems

a. Personal fall restraint systems will be rigged to prevent the user from falling any distance.

b. Fall restraint systems will use fall arrest system components and follow manufacturer's instructions.

c. The attachment point to the body belt or full body harness may be at the back, front, or side D-rings.

5. **Anchorages** used for attachment of personal fall restraint equipment will be independent of any anchorage being used to support or suspend platforms and will be capable of supporting 3,000 lbs. (13.3kN) per employee attached, or be designed, installed, and used under the supervision of a qualified person.

6. Positioning Device Systems

Body belt or body harness systems will be set up so an employee can free fall no farther than two feet, and will be secured to an anchorage capable of supporting twice the potential impact load or 3,000 pounds, whichever is greater. Requirements for snap hooks, D-rings, and other connectors are the same as detailed in this program under Personal Fall Arrest Systems.

7. Safety Monitoring System

a. Safety monitoring system will only be used as a fall protection system for roofing work on roof slopes of 2 in 12 or less.

b. The use of a safety monitoring system is not allowed on roofs more than 50 feet in width.

c. The safety monitor will be a competent person selected by the employer and will be capable of monitoring the safety of other employees and complying with the following:

- The safety monitor will be competent to recognize fall hazards.

- The safety monitor will warn employees when it appears that an employee is unaware of a fall hazard or is acting in an unsafe manner.
- The safety monitor will be on the same walking/working surface and within visual sight distance of the employees being monitored.
- The safety monitor will be close enough to communicate orally with the employees.
- The safety monitor will not have other responsibilities that may take the monitor's attention from the monitoring function.

d. Mechanical equipment will not be used or stored in areas where safety monitoring systems are being used to monitor employees engaged in roofing operations.

e. Only employees engaged in roofing work will be allowed in an area where employees are being protected by the safety monitoring system.

8. Safety Net Systems

a. Safety net systems must be installed no more than 30 feet below the walking/working surface with sufficient clearance to prevent contact with the surface below, and will be installed with sufficient vertical and horizontal distances as described in the OR-OSHA Fall Protection Standard or other regulating entity.

b. All nets will be inspected at least once a week by a competent person for wear, damage, or deterioration. Defective nets will be removed from use and replaced with acceptable nets.

c. All nets will be in compliance with mesh, mesh crossing, border rope, and connection specifications as described in the OR-OSHA Fall Protection Standard or other regulating entity.

d. When nets are used on bridges, the potential fall area from the walking/working surface will remain unobstructed.

e. Objects that have fallen into safety nets will be removed as soon as possible and at least before the next working shift.

9. Warning Line Systems

a. A warning line system will not be used as fall protection on roof slopes greater than 2 in 12.

b. Warning line systems consisting of supporting stanchions and ropes, wires, or chains will be erected around all sides of roof work areas.

- Lines will be flagged at six-foot intervals with high visibility materials.
- The lowest point of the line (including sag) will be between 34 and 39 inches from the walking/working surface.
- Stanchions of warning line systems will be capable of resisting at least 16 pounds of force.

- Ropes, wires, or chains will have a minimum tensile strength of 500 pounds.
- The warning line systems will be erected at least six feet from the edge, except in areas where mechanical equipment is in use. When mechanical equipment is in use, warning line systems will be erected at least six feet from the parallel edge, and at least 10 feet from the perpendicular edge.

c. Employees will be allowed in the area between a roof edge and a warning line when the employees are equipped with appropriate fall protection.

10. Falling Object Protection

When guardrail systems are in use, the openings will be small enough to prevent potential passage of falling objects. The following procedures will be followed.

a. No materials (except masonry and mortar) will be stored within four feet of working edges.

b. Excess debris will be removed regularly to keep work areas clear.

c. During roofing work, materials and equipment will be stored at least six feet from the roof edge unless guardrails are erected at the edge.

b. Stacked materials must be stable and self-supporting.

c. Canopies will be strong enough to prevent penetration by falling objects.

d. Toe boards erected along the edges of overhead walking/working surfaces will be:

- Capable of withstanding a force of at least 50 lbs.
- Solid, a minimum of 3½ inches tall, and no more than ¼ inch clearance above the walking/working surface

e. Equipment will not be piled higher than the toe board unless paneling or screening has been erected above the toe board.

5.0 Training

All employees who may be exposed to fall hazards are required to receive training on how to recognize hazards, and how to minimize their exposure. Employees will receive training as soon after employment as possible, and before they are required to work in areas where fall hazards exist.

1. A record of employees who have received training and training dates will be maintained by the Safety Department. Training of employees by a competent person will include:

   a. Nature of the fall hazards employees may be exposed to

   b. Correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems

c. Use and operation of controlled access zones, guardrails, personal fall arrest systems, safety nets, warning lines, and safety monitoring systems

d. Role of each employee in the Safety Monitoring System (if this system is used)

e. Limitations of the use of mechanical equipment during roofing work on low slope roofs (if applicable)

f. Correct procedures for equipment and materials handling, and storage and erection of overhead protection

g. Requirements of the OR-OSHA Fall Protection Standard, 29 CFR 1926, Subpart M

2. Additional training will be provided on an annual basis, or as needed when changes are made to this fall protection program, an alternative fall protection plan, or the OSHA fall protection standard.

3. The latest training certification will be maintained by the safety department. Retraining for an employee will occur with any of the following situations:

   a. Changes in the workplace render previous training obsolete.

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

   c. Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill.

Fall Protection Work Plan

Trade or Sub: _____ Date:_____

Report Prepared By: _____

1. Specific Work Area: _____

   _____

   _____

2. Activities: _____

   _____

   _____

3. Identified hazards in the work area: _____

   _____

   _____

4. Check methods of fall restraint or arrest to be used:

- ☐ Standard guardrail, top, mid, and toe board
- ☐ Float
- ☐ Secured to existing strut
- ☐ Scaffold w/guardrail and toe boards
- ☐ Beam seat
- ☐ Double lanyard system
- ☐ Safety nets
- ☐ Tie off point capable of 5,000 lb. load
- ☐ Drop line/rope grab
- ☐ Boom lift
- ☐ Horizontal lifeline
- ☐ Full body harness
- ☐ Restraint line
- ☐ Shock absorber lanyard
- ☐ Scissor lift

Other (specify)

5. Describe procedures for assembly, maintenance, inspection and disassembly of system (attach separate sheet if more space is needed)

_____

_____

_____

6. Describe procedures for handling and securing tools and equipment and for providing overhead protection for workers (attach a separate sheet if necessary).

_____

_____

_____

_____

7. Describe the designated method for prompt, safe removal of injured workers.

_____

_____

_____

_____

8. This space is provided for a stick figure drawing of the system configuration.

9. _____

I certify that I have received fall protection orientation including the material covered in this plan.

Employee	Date	Employee	Date

This plan has been prepared as a general guideline in preparing a fall protection work plan.

Submit this plan to the Safety Department for each new activity.

Fall Protection Policy

Definitions

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

Walking/working surface means any area including, but not limited to, floors, a roof surface, bridge, the ground, and any other surfaces whose dimensions are forty-five inches or more in all directions, through which workers can pass or conduct work. A walking/working surface does not include vehicles or rolling stock on which employees must be located in order to perform their job duties.

Policy

Falls from elevation are a major cause of injuries and death in the construction industry. Absolute Comfort Technology, LLC is committed to eliminating injuries caused by fall hazards by instituting a program of 100% fall protection for all fall hazards regardless of height.

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 296-155-24609(2).

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 296-155-24615(2). Guarding is not required where there is entrance to a ramp, stairway, or fixed ladder.

Fall protection at "10" feet – Absolute Comfort Technology, LLC will ensure that the appropriate fall protection system is provided, installed, and implemented according to the requirements in WAC 296-155-24611 when employees are exposed to fall hazards of ten feet or more to the ground or lower level.

Fall Protection Work Plan

All work areas with fall hazards of 10 feet or more will implement a fall protection work plan before any employees begin work. The employees in the specific work area will be trained in the fall hazards and the method used to implement fall protection. The training guide on the next page will be used to train employees in the inspection and maintenance of their fall protection equipment, as well as fall protection selection criteria. All employees will use fall protection when there is exposure to any fall hazard. Employees who fail to follow this policy are subject to disciplinary action, up to and including dismissal.

Rescue Considerations

As required by State & Federal rule, when personal fall arrest systems are used, the employer must assure that employees can be promptly rescued or can rescue themselves should a fall occur. The availability of rescue personnel, ladders or other rescue equipment should be evaluated. In some situations, equipment, which allows employees to rescue themselves after a fall, has been arrested, may be desirable, such as devices, which have descent capability.

Training

All employees that are exposed to fall hazards shall be trained in the recognition and minimization of such hazards. Training will be arranged through Absolute Comfort Technology, LLC. The employee shall be trained in the following areas:

- Nature of fall hazards in the work area;
- The correct procedures for erecting, maintaining, disassembling and inspecting fall protection systems;
- The use and operation of controlled access zones and guardrail, personal fall arrest and warning lines;
- The limitations on the use of mechanical equipment during the performance of roofing work on low-slope roofs;
- The correct procedures for equipment and materials handling and storage and the erection of overhead protection; and
- The employee's role in fall protection plans.

Safety Monitoring Systems

If no fall protection, including personal fall arrest systems, warning line systems, controlled access zones or guardrail system can be implemented, then a safety monitoring system shall be established. The responsible department shall designate a safety monitor to monitor the safety of the workers. Procedures for a safety monitor are outlined in WAC 296-155-24615(5).

Controlled Access Zones

Controlled access zones, when created to limit entrance to areas where leading edge work and other operations are taking place, shall be defined by a controlling line or other means that restricts access see WAC 296-155-24615(4).

Fire Prevention Program

1.0 Objective

The purpose of this Fire Prevention Program is to eliminate the causes of fire; prevent loss of life, injury, and property by fire; and to comply with the Occupational Safety and Health Administration's (OSHA) standard on fire prevention, 29 CFR 1926.150 and 1910.38. It provides employees with information and guidelines that will assist them in recognizing, reporting, and controlling fire hazards.

2.0 Background

Absolute Comfort Technology, LLC is committed to minimizing the threat of fire to employees, visitors, and property. Absolute Comfort Technology, LLC complies with all applicable laws, regulations, codes, and best practices regarding fire prevention. The separate Emergency Action Plan outlines the procedures for responding to fires and other emergencies. This Fire Prevention Program serves to reduce the risk of fires at fixed facilities and jobsite locations in the following ways:

1. Identifies materials that are potential fire hazards and the proper handling and storage procedures
2. Identifies potential ignition sources and the proper control procedures of those materials
3. Describes fire protection equipment and/or systems used to control fire hazards
4. Identifies persons responsible for maintaining the equipment and systems installed to prevent or control ignition of fires
5. Identifies persons responsible for the control and accumulation of flammable or combustible material
6. Describes good housekeeping procedures necessary to ensure the control of accumulated flammable and combustible waste material and residues to avoid a fire emergency
7. Provides training to employees regarding fire hazards to which they may be exposed

3.0 Responsibility

Fire safety is everyone's responsibility. All employees should know how to prevent and respond to fires and are responsible for adhering to the company policy regarding fire emergencies.

1. Management approves the Absolute Comfort Technology, LLC fire prevention and protection policies. The company will provide adequate controls, resources, and training to its employees to provide a safe workplace that encourages fire prevention and the safest possible response in the event of a fire emergency.
2. The safety director will manage the Fire Prevention Program for the company and maintain all records. The safety director shall also:

- Develop and administer the company's fire prevention training program
- Ensure that fire control equipment and systems are properly maintained
- Control fuel source hazards
- Conduct Fire Risk Surveys (see Appendix A) and make recommendations

3. Supervisors are responsible for ensuring that employees receive appropriate fire safety training, and for notifying the safety director when changes in operation increase the risk of fire. Supervisors are also responsible for enforcing the fire prevention and protection policies.
4. Employees shall:
    - Complete required training before working without supervision.
    - Conduct operations safely to eliminate or reduce the risk of fire.
    - Report potential fire hazards to their supervisors.
    - Follow fire emergency procedures.

4.0 Operations

1. Good housekeeping limits the risk of fires. Employees shall take the following precautions:
    - Minimize the storage of combustible materials.
    - Make sure that doors, hallways, stairs, and other exit routes are kept free of obstructions.
    - Dispose of combustible waste in covered, airtight, metal containers.
    - Use and store flammable materials in well-ventilated areas away from ignition sources.
    - Use only nonflammable cleaning products.
    - Keep incompatible (i.e., chemically reactive) substances away from each other.
    - Perform "hot work" (i.e., welding or working with an open flame or other ignition sources) in controlled and well-ventilated areas.
    - Keep equipment in good working order (i.e., inspect electrical wiring and appliances regularly and keep motors and machine tools free of dust and grease).
    - Ensure that heating units are safeguarded.
    - Report all gas leaks immediately to the supervisor. All gas leaks shall be repaired immediately upon notification.
    - Repair and clean up flammable liquid leaks immediately.

- Keep work areas free of dust, lint, sawdust, scraps, and similar material.
- Do not rely on extension cords if wiring improvements are needed, and take care not to overload circuits with multiple pieces of equipment.
- Ensure that required hot work permits are obtained.
- Turn off electrical equipment when not in use.

2. Maintenance of equipment according to manufacturers' specifications will minimize fire risk. The company will also comply with requirements of the National Fire Protection Association (NFPA) codes for specific equipment. Only properly trained individuals shall perform maintenance work.

   The following equipment is subject to maintenance, inspection, and testing procedures:

   - Equipment installed to detect fuel leaks, control heating, and control pressurized systems
   - Portable fire extinguishers, automatic sprinkler systems, and fixed extinguishing systems
   - Detection systems for smoke, heat, or flame
   - Fire alarm systems
   - Emergency backup systems and the equipment they support

5.0 Types of Hazards

The following address the major workplace fire hazards at Absolute Comfort Technology, LLC facilities and jobsite locations, and the procedures for controlling the hazards.

1. Electrical fire hazards, electrical system failures, and the misuse of electrical equipment are leading causes of workplace fires. Fires can result from loose ground connections, wiring with frayed insulation, or overloaded fuses, circuits, motors, or outlets.

   To prevent electrical fires, employees shall:

   - Make sure that worn wires are replaced by a qualified person.
   - Use only appropriately rated fuses.
   - Never use extension cords as substitutes for wiring improvements.
   - Use only approved extension cords, e.g., those with the Underwriters Laboratory (UL) or Factory Mutual (FM) label.
   - Check wiring in hazardous locations where the risk of fire is especially high.
   - Check electrical equipment to ensure that it is either properly grounded or double insulated.
   - Ensure adequate spacing while performing maintenance.

2. Portable electric heaters shall have tip over protection that automatically shuts off the unit when it is tipped over. There shall be adequate clearance between the heater and combustible furnishings or other materials at all times.
3. Office fires have become more likely because of the increased use of electrical equipment such as: computers, printers, speakers, copiers, etc. To prevent office fires, employees shall:
    - Avoid overloading circuits with office equipment.
    - Turn off nonessential electrical equipment at the end of each workday.
    - Keep storage areas clear of rubbish.
    - Ensure that extension cords are not placed under carpets.
    - Ensure that trash and paper set aside for recycling is not allowed to accumulate.
4. Cutting, welding, and open flame work—ensure the following:
    - All necessary hot work permits have been obtained prior to start of work.
    - Cutting and welding are done by qualified and authorized personnel in designated cutting and welding areas whenever possible.
    - Adequate ventilation is provided.
    - Torches, regulators, pressure-reducing valves, and manifolds are UL listed or FM approved.
    - Oxygen-fuel gas systems are equipped with listed and/or approved backflow valves and pressure-relief devices.
    - Cutters, welders, and helpers are wearing eye protection and appropriate protective clothing to prevent injury.
    - Cutting or welding is prohibited in sprinklered areas while sprinkler protection is out of service.
    - Cutting or welding is prohibited in areas where explosive atmospheres of gases, vapors, or dusts could develop from residues or accumulations in confined spaces.
    - Cutting or welding is prohibited on metal walls, ceilings, or roofs built of combustible, sandwich-type panel construction or having combustible covering.
    - Confined spaces, such as tanks, are tested to ensure that the atmosphere is not over ten percent of the lower flammable limit before cutting or welding in or on the tank.
    - Small tanks, piping, or containers that cannot be entered are cleaned, purged, and tested before cutting or welding on them begins.
    - Fire watch has been established.

5. Flammable and combustible materials will regularly be evaluated by the safety director. This is completed using the Flammable and Combustible Materials Checklist (see Appendix B).

    A. Class A combustibles include common combustible materials (wood, paper, cloth, rubber, and plastics) that can act as fuel and are found in non-specialized areas such as offices.

    To handle Class A combustibles safely:

    - Dispose of waste daily.
    - Keep trash in metal-lined receptacles with tight-fitting covers (metal wastebaskets that are emptied every day do not need to be covered).
    - Keep work areas clean and free of fuel paths that could allow a fire to spread.
    - Keep combustibles away from accidental ignition sources, such as hot plates, soldering irons, or other heat- or spark-producing devices.
    - Store paper stock in metal cabinets.
    - Store rags in metal bins with self-closing lids.
    - Do not order and/or store excessive amounts of combustibles.
    - Make frequent inspections to anticipate fires before they start.

    Water, multi-purpose dry chemical (ABC), and halon 1211 are approved fire extinguishing agents for Class A combustibles. (Note: halon has been determined to be an ozone-depleting substance and is no longer being manufactured. Existing systems using halon can be kept in place.)

    B. Class B combustibles include flammable and combustible liquids (oils, greases, tars, oil-based paints, and lacquers), flammable gases, and flammable aerosols.

    To handle Class B combustibles safely:

    - Use only approved pumps, taking suction from the top, to dispense liquids from tanks, drums, barrels, or similar containers (or use approved self-closing valves or faucets).
    - Do not dispense Class B flammable liquids into containers unless the nozzle and container are electrically interconnected by contact or by a bonding wire. Either the tank or container must be grounded.
    - Store, handle, and use Class B combustibles only in approved locations where vapors are prevented from reaching ignition sources such as heating or electric equipment, open flames, or mechanical or electric sparks.
    - Do not use a flammable liquid as a cleaning agent inside a building (the only exception is in a closed machine approved for cleaning with flammable liquids).

- Do not use, handle, or store Class B combustibles near exits, stairs, or any other areas normally used as exits.
- Do not weld, cut, grind, or use unsafe electrical appliances or equipment near Class B combustibles.
- Do not generate heat, allow an open flame, or smoke near Class B combustibles.
- Know the location of and how to use the nearest portable fire extinguisher rated for Class B fire.

Water should not be used to extinguish Class B fires caused by flammable liquids. Water can cause the burning liquid to spread, making the fire worse. To extinguish a fire caused by flammable liquids, exclude the air around the burning liquid. The following fire-extinguishing agents are approved for Class B combustibles: carbon dioxide, multi-purpose dry chemical (ABC), halon 1301, and halon 1211.

6. Smoking is prohibited in all company facilities and jobsites. Smoking is allowed in designated smoking areas only.

6.0 Training

The safety director will provide basic fire prevention training to all employees upon employment, and will maintain documentation of the training, which includes:

- Review of 29 CFR 1926.150 and 1910.38 and how it may be accessed.
- This fire prevention program
- Good housekeeping practices
- Proper response and notification in the event of a fire
- Instruction on the use of portable fire extinguishers (as determined by company policy in the Emergency Action Plan)
- Recognition of potential fire hazards

Supervisors shall train employees about the fire hazards associated with the specific materials and processes to which they are exposed, and will maintain documentation of the training. Employees will receive this training:

- Upon initial assignment
- Annually
- When changes in work processes dictate additional training

7.0 Program Review

The safety director will review this program annually and make necessary changes.

Appendix A

Fire Risk Survey
Absolute Comfort Technology, LLC
7 South 5th Avenue, Yakima, WA 98902

Type of Fire Hazard	Location	Emergency Actions	Required PPE

Completed by:_____ Date: _____

Appendix B

Absolute Comfort Technology, LLC
Flammable and Combustible Materials Checklist

Use this checklist to evaluate Absolute Comfort Technology, LLC compliance with OSHA's standards on flammable and combustible materials.

☐Yes ☐No	Are combustible scrap, debris, and waste materials such as oily rags stored in covered metal receptacles and removed from the worksite promptly?
☐Yes ☐No	Are approved containers and tanks used for the storage and handling of flammable and combustible liquids?
☐Yes ☐No	Are all connections on drums and combustible liquid piping vapor and liquid tight?
☐Yes ☐No	Are all flammable liquids kept in closed containers when not in use?
☐Yes ☐No	Are metal drums of flammable liquids electrically grounded during dispensing?
☐Yes ☐No	Do storage rooms for flammable and combustible liquids have appropriate ventilation systems?
☐Yes ☐No	Are No Smoking signs posted on liquefied petroleum gas tanks?
☐Yes ☐No	Are all solvent wastes and flammable liquids kept in fire-resistant covered containers until they are removed from the worksite?
☐Yes ☐No	Is vacuuming used whenever possible rather than blowing or sweeping combustible dust?
☐Yes ☐No	Are fuel gas cylinders and oxygen cylinders separated by distances or fire-resistant barriers while in storage?
☐Yes ☐No	Are fire extinguishers appropriate for the materials in the areas where they are mounted?*

☐Yes ☐No Are appropriate fire extinguishers mounted within 75 feet of outside areas containing flammable liquids and within 10 feet of any inside storage area for such materials? *

☐Yes ☐No Are extinguishers free from obstruction or blockage? *

☐Yes ☐No Are all extinguishers serviced, maintained, and tagged at least once a year? *

☐Yes ☐No Are all extinguishers fully charged and in their designated places? *

☐Yes ☐No Where sprinkler systems are permanently installed, are the nozzle heads directed or arranged so that water will not be sprayed into operating electrical switchboards and equipment?

☐Yes ☐No Are No Smoking signs posted in areas where flammable or combustible materials are used or stored?

☐Yes ☐No Are safety cans utilized for dispensing flammable or combustible liquids at the point of use?

☐Yes ☐No Are all spills of flammable or combustible liquids cleaned up promptly?

☐Yes ☐No Are storage tanks adequately vented to prevent the development of an excessive vacuum or pressure that could result from filling, emptying, or temperature changes?

*Note: Use of fire extinguishers is based on company policy regarding employee firefighting in your Emergency Action Plan and local fire code.

Completed by:_____ Date: _____

Appendix C

Absolute Comfort Technology, LLC
General Fire Prevention Checklist

Use this checklist to ensure fire prevention measures conform to the general fire prevention requirements found in OSHA standards.

☐ Yes ☐ No	Is the local fire department acquainted with your facility, its location, and specific hazards?
☐ Yes ☐ No	If you have a fire alarm system, is it tested at least annually?
☐ Yes ☐ No	If you have interior stand pipes and valves, are they inspected regularly?
☐ Yes ☐ No	If you have outside private fire hydrants, are they on a routine preventive maintenance schedule and flushed at least once a year?
☐ Yes ☐ No	Are fire doors and shutters in good operating condition?
☐ Yes ☐ No	Are fire doors and shutters unobstructed and protected against obstructions, including their counterweights?
☐ Yes ☐ No	Are automatic sprinkler system water control valves, air pressure, and water pressure checked weekly or periodically?
☐ Yes ☐ No	Has responsibility for the maintenance of automatic sprinkler systems been assigned to an employee or contractor?
☐ Yes ☐ No	Are sprinkler heads protected by metal guards?
☐ Yes ☐ No	Is proper clearance maintained below sprinkler heads?
☐ Yes ☐ No	Are portable fire extinguishers provided in adequate number and type?*
☐ Yes ☐ No	Are fire extinguishers mounted in readily accessible locations? *
☐ Yes ☐ No	Are fire extinguishers recharged regularly with the recharge date noted on an inspection tag? *

☐ Yes ☐ No Are employees periodically instructed in the use of extinguishers and fire protection procedures? *

*Note: Use of fire extinguishers is based on company policy regarding employee firefighting in your Emergency Action Plan and local fire code.

Completed by:_____ Date: _____

Appendix D

Absolute Comfort Technology, LLC
Exits Checklist

Use this checklist to evaluate Absolute Comfort Technology, LLC compliance with OSHA's standard on emergency exit routes.

☐ Yes ☐ No Is each exit marked with an exit sign and illuminated by a reliable light source?

☐ Yes ☐ No Are the directions to exits, when not immediately apparent, marked with visible signs?

☐ Yes ☐ No Are doors, passageways, or stairways that are neither exits nor access to exits, and which could be mistaken for exits, marked "Not an Exit" or other appropriate marking?

☐ Yes ☐ No Are exit signs provided with the word "EXIT" in letters at least five inches high and with lettering at least one inch wide?

☐ Yes ☐ No Are exit doors side-hinged?

☐ Yes ☐ No Are all exits kept free of obstructions?

☐ Yes ☐ No Are there at least two exit routes provided from elevated platforms, pits, or rooms where the absence of a second exit would increase the risk of injury from hot, poisonous, corrosive, suffocating, flammable, or explosive substances?

☐ Yes ☐ No Is the number of exits from each floor of a building and from the building itself appropriate for the building occupancy? (Note: Do not count revolving, sliding, or overhead doors when evaluating whether there are sufficient exits.)

☐ Yes ☐ No Are exit stairways that are required to be separated from other parts of a building enclosed by at least one-hour, fire-resistant walls (or at least two-hour, fire-resistant walls in buildings over four stories high)?

☐ Yes ☐ No Are the slopes of ramps used as part of emergency building exits limited to one foot vertical and 12 feet horizontal?

☐ Yes ☐ No Are glass doors or storm doors fully tempered, and do they meet the safety requirements for human impact?

☐ Yes ☐ No Can exit doors be opened from the direction of exit travel without the use of a key or any special knowledge or effort?

☐ Yes ☐ No Are doors on cold storage rooms provided with an inside release mechanism that will release the latch and open the door even if it's padlocked or otherwise locked on the outside?

☐ Yes ☐ No Where exit doors open directly onto any street, alley, or other area where vehicles may be operated, are adequate barriers and warnings provided to prevent employees from stepping into the path of traffic?

☐ Yes ☐ No Are doors that swing in both directions and are located between rooms where there is frequent traffic equipped with glass viewing panels?

Completed by:_____ Date: _____

Fleet Management - Accident Prevention

Preventable Accidents

Objective: To reduce motor carrier fleet accident rates by establishing a company standard for safe driving.

Description: A preventable accident is one which occurs because the driver fails to act in a reasonably expected manner to prevent it. In judging whether the driver's actions were reasonable, one seeks to determine whether the driver drove defensively and demonstrated an acceptable level of skill and knowledge. The judgment of what is reasonable can be based on a company-adopted definition, thus establishing a goal for its safety management programs.

Note that the above definition of preventable accident is focused on the actions of the driver. It is the commonly used definition in evaluating driver performance. A broader definition, which can be used to evaluate the driver's and the motor carrier's actions, is given by the Federal Motor Carrier Safety Regulations as follows: Preventable accident on the part of a motor carrier means an accident (1) that involved a commercial motor vehicle, and (2) that could have been averted but for an act, or failure to act, by the motor carrier, or the driver.

The concept of a preventable accident is a fleet safety management tool which achieves the following goals:

- It helps establish a safe driving standard for the driver.
- It provides a criterion for evaluating individual drivers.
- It provides an objective for accident investigations and evaluations.
- It provides a means for evaluating the safety performance of individual drivers and the fleet as a whole.
- It provides a means for monitoring the effectiveness of fleet safety programs.
- It assists in dealing with driver safety infractions.
- It assists in the implementation of safe driving recognition programs.

Management:

- Does the company have a program for investigating accidents?
- Is there a company accident review committee?
- Has the company defined a standard for the safe driving performance of its drivers?
- Is the carrier's standard for safe driving performance sufficiently challenging such that it would serve to highlight areas for fleet safety improvement?
- Are the drivers instructed as to what the company standard for safe driving is?
- Are the drivers instructed about company procedure for evaluating the preventability of accidents?

DRIVER QUALIFICATIONS AND PERFORMANCE

Objective: To improve motor carrier fleet safety by recruiting qualified drivers and monitoring the performance and qualifications of existing drivers.

Description: The great majority of preventable accidents can be shown to be directly related to the performance of the driver. It is therefore extremely productive to any fleet safety program to have careful new driver selection and adequate monitoring procedures for existing drivers.

Management:

When hiring new drivers:

- Are recruiting efforts sufficient to attract an adequate number of qualified applicants for effective selection?
- Is there an established formal procedure for interviewing, testing and screening applicants?
- Is there a defined standard of skill and knowledge to be met by successful applicants?
- Are appropriate methods being utilized to check out previous employment history and references?
- Is the prior driving record being checked?
- Are the applicants' physical qualifications checked?

Monitoring existing drivers' qualifications:

- Is there a formal program for monitoring drivers' qualifications?
- Is there a periodic review of the driving record?
- Is there a periodic review of the drivers' health?
- Are drivers monitored for drug and alcohol abuse?
- Is there a means for identifying deficiencies in drivers' skills and knowledge and a procedure for remedial training?
- Is there an established procedure for terminating unqualified drivers?

SAFE DRIVING RECOGNITION

Objective: To encourage safe driving and improve driver awareness of safety.

Description: Safe driving recognition or incentive programs should be an integral part of a formal fleet safety program. Such programs identify superior driving performance and set forth the selected drivers as examples to be emulated by the rest of the fleet. Such programs can be generated internally within the company or through participation in national safe driver award programs conducted by associations such as the National Safety Council or the American Trucking Associations.

Management:

- Does the company have a formal safe driver recognition and incentive program?
- Is there participation in a company driver recognition program or in national award programs?
- Does the company have a means for evaluating driver performance?
- Use safe driving recognition to:
    - Encourage safe driving performance
    - Heighten driver safety awareness
    - Foster driver professionalism
    - Focus the monitoring of individual driver performance and skills
    - Help monitor fleet performance and effectiveness of the fleet safety program

DRIVER SAFETY INFRACTIONS

Objective: To improve fleet safety by remedial training or termination of unqualified drivers.

Description: Driving is a profession requiring skill, knowledge, physical and mental health and character integrity. Public safety and company reputation requires that drivers be fully qualified. Drivers who are not qualified should receive remedial training or be terminated if they cannot be brought up to the necessary level of competence.

Management:

- Does the carrier have a formal review program for driver qualification?
- Do all the drivers meet the FMCSR qualification requirements?
- Does the company have a standard for safe driving?
- Is there a company policy for issuing reprimands and terminations?
- Is a progressive disciplinary action a feature of the policy?
- Are remedial training programs available?
- Is remedial training included in the progressive discipline?

DRINKING AND SUBSTANCE ABUSE

Objective: To prevent accidents caused by drivers under the influence by identifying and controlling abusers.

Description: It has been well documented that drivers under the influence of alcohol or drugs have been involved in about half of all fatal traffic accidents. Drinking or substance abuse by drivers of alcohol or drugs cannot be tolerated. Company management must be acutely aware of the seriousness of this societal problem and establish procedures to effectively control it within their respective organizations.

Management:

Are the driving records and references of new-hire applicants checked thoroughly for evidence of drinking or substance abuse problems?

- Has a written policy been established which stipulates countermeasures that will be followed when dealing with abusers?
- Has a formal policy been made known to all drivers?
- Do drivers' immediate supervisors and dispatchers know how to identify personnel under the influence?
- Are immediate supervisors and dispatchers motivated to notify management about problem drivers?
- Has management educated drivers about the ways in which drinking and substance abuse affect driving performance?
- Does the company have a list of references and potential sources for help available to drivers?
- Be aware of marked changes in work behavior, personal relations, emotional moods and appearance of your drivers.
- Immediate supervisors are in the best position to observe unusual driver behavior.
- Do a thorough job in screening applicants regarding drinking and substance abuse. Your company can't afford to deal with the problems abusers will give you.

Drivers:

- Don't drink and drive.
- Don't abuse drugs, legal or illegal.
- Find out if prescription or over-the-counter medications may adversely affect safe driving.
- Get help fast if you have, or think you may have an abuse problem.

ILLNESS AND FATIGUE

Objective: To prevent accidents caused by ill and fatigued drivers through the use of common sense and by compliance with FMCSR's regarding physical qualifications and hours-of-service.

Description: Everyone understands how ill or fatigued drivers can be a hazard to themselves and others. Nonetheless, drivers sometimes push their bodies beyond reasonable limits and become a hazard anyway. This is why comprehensive federal regulations have been established. In addition to being law, these regulations are useful guides to both the driver and his supervisors in defining reasonable, sensible limitations on when medical conditions or duty status calls for rest and no driving.

Management:

Are supervisors fully aware of all the FMCSR's which relate to physical qualifications, medical examinations and hours-of-service?

- Are maximum on-duty and driving times clearly spelled out to your drivers?
- Do you cross-check driver-logs with odometer readings, fuel receipts and weight scale tickets?
- Do you use tachographs or on-board trip computers if you suspect driver violations?
- Have drivers been explicitly informed how violations will be dealt with?

Drivers:

- Don't start a long trip unless you get a good sleep before you go.
- When possible, schedule your trips so that you drive when you are normally awake and you sleep when you are normally asleep. Don't throw off your body clock more than necessary.
- Be careful with any kind of medication. Many medicines can make you sleepy.
- If you get drowsy, don't drive. You're asking for problems. At least take a short nap until you can drive somewhere to get a good sleep.

FLEET SAFETY PROGRAM AND SUPERVISION

Objective: To improve safe driving performance with an effective fleet safety program.

Description: Fleet safe driving performance is dependent on management commitment to the implementation of a formal fleet safety program. An effective safety program will interact with most aspects of fleet operations and challenge the skills and knowledge of its supervisors and drivers.

Management:

- Is there a formal fleet safety program?
- Is there a designated person with responsibility for safety and compliance with regulations?
- Is the safety director given an opportunity for professional development by attending training seminars and industry association meetings?
- Do the company and its supervisory staff maintain membership and remain active in trade and professional associations?
- Does your fleet safety program provide the framework for safety management to:
    - Recruit and screen new drivers?
    - Monitor driver qualifications and safety infractions?
    - Provide training to upgrade driver skills and knowledge?

- Provide a formal mechanism for investigating and reviewing accidents?
- Implement safe driving incentive?
- Monitor maintenance and equipment safety?
- Oversee and implement regulatory compliance?
- Establish carrier safety standards?
- Communicate program goals to drivers and supervisory personnel?
- Monitor program effectiveness?
- Offer recognition to drivers who meet the required standard of performance?

COMPANY DRIVER MANUALS

Objective: To improve fleet safety through improved communication.

Description: The company driver manual is a key communication link between the company and its drivers. It conveniently brings together information about the company, its policies and procedures. It is indispensable for training new drivers and is a handy reference for existing drivers. The manual should be progressively developed and continually updated.

Management:

- Does the company have an updated manual for its drivers?
- Does the manual describe the fleet safety program?
- Does it set forth the carrier's standards for safe driving?
- Is the company procedure for review and classification of accidents included?
- Are the company's disciplinary procedures explained?
- Is the manual regularly reviewed and updated?

DRIVER TRAINING AIDS

Objective: To improve fleet safety through use of training aids.

Description: The number of driver training aids is so great that the problem is how to locate, select and evaluate the most appropriate ones for the company. It is important to determine what mix of audio-visual aids, posters, manuals, pamphlets and other literature is most effective in improving the company's training program. Advice is available from a number of organizations.

Management:

- Does the company have a safety training program?
- Are audio-visual aids being utilized?
- Has a recent survey of available driver training aids been carried out by the company?
- What about retraining for meeting new regulations and license requirements?

TRUCK DRIVING SCHOOLS

Objective: To improve fleet safety by improving driver skills and knowledge.

Description: Truck driving schools are good sources for motivated young drivers and a means for remedial training. There are many

schools. Some are operated commercially, others are operated privately by large carriers. Each school is different; with differing objectives, facilities, and staff orientation. It is important to check that the curriculum of the school matches the needs of the company, before the school is selected.

Management:

- Are truck driving schools being used as a recruiting source?
- Has the carrier considered truck driving schools as a tool for remedial training?
- Has the company identified schools which meet its objectives?
- Some factors to be considered when selecting a particular school:
    - Curriculum content
    - Adequacy of facilities
    - Compatibility of training vehicles with company fleet
    - Staff qualifications and experience
    - Certification
    - Referrals
    - Hours of actual driving instruction and practice.

PLANNING SCHEDULES, LOADS AND ROUTES

Objective: To maximize safe driving efficiency through planning at the dispatching level.

Objective: To maximize safe driving efficiency through planning at the dispatching level.

Description: Assisting the driver with pre-trip planning avoids overburdening the driver with unusual driving conditions caused by tight schedules, unusual cargoes, and unfamiliar or hazardous routes.

Management:

- Are Hours-of-Service statutory regulations enforced?
- Are records of driver duty status maintained?
- Does the carrier have a means of forecasting available driver hours?
- Is dispatching planned to minimize the need for excessive on-duty schedules?
- Are tight schedules minimized and allowances made for adverse weather conditions?
- Are dispatchers knowledgeable in matching cargoes with vehicles during dispatching?
- Are drivers instructed how to deal with sealed cargoes?
- How does the company handle the problem of overloading?
- How does the company instruct drivers with regard to improperly loaded or secured cargoes?
- Are routes planned and drivers coached to avoid high hazard locations?
- Are schedules reviewed to ensure against Hours-of-Service violations?

Foreman Responsibilities

1. Provide jobsite safety and operations training to new employees and to workers given new job assignment
    a. Assure that personal protective equipment is issued and used by employees at all required times
    b. Report unsafe work practices or unsafe equipment to the superintendent
2. Clarify procedures for reporting safety hazards
    a. Immediately correct reported safety hazards
3. Conduct crew safety meetings or make individual safety contacts with each supervised employee on at least a weekly basis
    a. Submit a record of safety contacts to the Superintendent at the end of each month
4. Conduct jobsite inspections, alternating this task with other foremen
    a. Inspections should take place prior to weekly safety meeting
    b. Submit written inspection reports to the Superintendent
    c. Take corrective action when needed safeguards are observed
5. Monitor and enforce all company safety rules
    a. Reprimand all employees who disregard rules are engage in horseplay, record more than one reprimand in the employee's personal file
6. Maintain current CPR and first aid certificates
    a. Keep certification records on the person during all working hours
    b. Provide first aid as needed and assure that injured workers are accompanied to medical providers when necessary
7. Report all industrial accidents to the Superintendent within four hours of the incident
    a. Assist in accident investigations when requested

NAME (PRINT)

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.

Sample Label

Hazard Communications Program

1.0 Introduction

Absolute Comfort Technology, LLC hazard communications program is designed to ensure that employees who may be exposed to hazardous chemicals are properly trained and understand how to protect themselves from those hazards.

Product labels and safety data sheets (SDS), formerly known as material safety data sheets (MSDS), identify the hazardous properties of chemicals that may pose a health or physical hazard. They also provide guidance for appropriate protective measures.

Never use any chemical or substance until you have read the label or the SDS/MSDS.

If you have questions or have not been instructed on the safe use of hazardous substances, ask your supervisor.

If personal protection is needed, it will be provided at no cost to the employee. Refer to our company's Respiratory Protection Program for additional information.

2.0 Training

Training will be performed at least annually for hazard communication according to OSHA's 1926.59 (1910.1200). This training will include:

- Where the written hazard communication program is located, as well as the SDS/MSDS location.
- Overview of the Hazardous Communication Standard (1910.1200).
- Operations and areas where there are hazardous chemicals in the work area.
- Methods used to detect the presence and release of a hazardous chemical.
- Physical and health hazards of chemicals in their work areas.
- Warning properties and types of exposures (i.e.: odor, welding smoke, skin contact, ventilation, etc.).
- Work practices and personal protective equipment to prevent adverse exposures to these chemicals.
- Labeling
- Emergency procedures to follow if an adverse exposure occurs.
- Emergency procedures for spills or non-routine tasks, such as confined space entry.

After receiving this training, the employee will sign a form documenting they have received hazardous communication training and are aware of where to check for additional information (SDS/MSDS). The same procedures will be followed if new hazardous chemicals are introduced into the work area.

3.0 SDS/MSDS and Labeling

All SDS/MSDS product sheets are maintained and kept by _____, and located at _____. These are updated when new products are used, and are available at any time for review or in case of emergency.

_____ will verify that all containers received for usage at the each location will be labeled according to Appendix C (1910.1200).

This will include:

- A product identifier
- A signal word
- A hazard statement
- A pictogram
- Precautionary statements
- The supplier's name, address, and telephone number.
- Secondary containers, not for immediate use, will also be properly labeled with the content of the container and appropriate hazards, (i.e., flammable, corrosive, etc.).

If secondary containers need labels, _____ will assure the proper labeling of containers according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), and will include:

- All the information specified for the labels on shipped containers
- The product identifier and words, pictures, symbols, or a combination that provides at least general information about the hazards of the chemicals.

If a secondary container is intended and used immediately by the same person for the work shift, it is not required to have a secondary label.

4.0 Non-Routine Tasks

Periodically employees may be required to perform non-routine tasks that may present increased risks or job hazards. When this type of work is to be performed, employees will receive additional instruction from _____.

This instruction will include as a minimum:

- Specific chemical hazards (cleaners, paints, solvents, oxygen deficient atmospheres, etc.)

- Safe work methods (tank entry procedures, personal protective equipment, etc.)

No employee is to begin any type of hazardous non-routine task without first receiving proper instruction.

5.0 Multi-Employer Projects

To ensure that other contractors' employees have access to the SDS/MSDS for the hazardous chemicals or products used on a multi-employer job site, it is the responsibility of the project supervisor/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 job site.
- Any recommendations or appropriate protective measure to be taken by the other contractor's employees who may be exposed to the hazardous chemicals.
- Location of SDS/MSDS for hazardous chemicals on site. (Note: on most projects the general contractor will maintain copies of SDS/MSDS for all subcontractors on site.)
- Information on the labeling system being used.

6.0 In Case of Emergency

In an emergency call 911. Contact _____ for information about the chemical emergency information and/or to obtain a copy of the SDS/MSDS.

7.0 List of Hazardous Chemicals

Below is a list of the hazardous chemicals used in the workplace. _____ will update and maintain this list.

Product Name	Manufacturer	Location

8.0 Program Evaluation

The hazard communications program administrator is _____. The program administrator will update the written program when any change in the workplace affects employees' use of respirators, or at least annually.

HEARING CONSERVATION PROGRAM

POLICY STATEMENT

In an effort to protect the health of our workforce**,** Absolute Comfort Technology, 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 maxima 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 micro pascals. 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

Absolute Comfort Technology, LLC has performed 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 employees are exposed at or above an 8-hour time weighted average of 85 dBA, Absolute Comfort Technology, 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

Absolute Comfort Technology, 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 Absolute Comfort Technology, 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.

Employees shall be given the opportunity to select their hearing protectors from at least two different types (i.e., molded, self-molded, custom molded, or ear muffs) of suitable hearing protectors provided by the Absolute Comfort Technology, LLC.

Hearing Protector Attenuation

Absolute Comfort Technology, 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 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

Absolute Comfort Technology, 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.

Annual Audiogram

At least annually (i.e. every 12-month interval) after obtaining the baseline audiogram, each employee shall be retested to establish a new audiogram.

Annual audiometric testing may be conducted at any time during the work shift.

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. Absolute Comfort Technology, 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 Absolute Comfort Technology, 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 employee's 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 RELATED ILLNESS SAFETY PROGRAM

Purpose

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

Policy

It is the policy of Absolute Comfort Technology, 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 Absolute Comfort Technology, 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

Absolute Comfort Technology, LLC has evaluated the workplace and identified the following heat related illness hazards:

List of hazards such as:

- 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 in shade
Work Clothes	89˚ F	96˚ F
Double-layer woven clothes (e.g. cotton coveralls on top of summer clothes	77˚ F	87˚ F
Vapor barrier (e.g.: encapsulating suit or turn-out gear)	52˚ F	62˚ 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:
Specific prevention, controls, and corrections of hazards such as:

- Additional rest breaks will be provided during peak temperature times (must list provision for rest breaks that are adjusted for environmental factors)
- 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 (must list this)
- 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.
- Cooling vests, bandanas, neck covers will be provided to employees
- 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

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 in the office at all times.

	Signs and Symptoms	First Aid and Treatment
Sunburn	• red, hot skin • may blister	• move to shade, loosen clothing • apply cool compresses or water
Heat Rash	• red, itchy skin • bumpy skin • skin infection	• apply cool water or compresses • keep affected area dry • control itching and infection with prescribed medication
Heat cramps	• muscle spasms in legs or abdomen • grasping the affected area • abnormal body position	• move person to a cooler location • stretch or massage muscles for cramps • get medical evaluation if cramps persist • give cool water or electrolyte-containing fluid to drink
Heat exhaustion	• headaches • clumsiness • dizziness/lightheadedness/fainting • weakness/exhaustion/fatigue • heavy sweating/clammy/moist skin • irritability/confusion • nausea/vomiting • paleness • high pulse rate	• move person to a cooler place (do not leave alone) • loosen and remove heavy clothing that restricts evaporative cooling • if conscious, provide small amounts of cool water to drink • fan person, spray with cool water, or apply a wet cloth to skin to increase evaporative cooling • lay flat and elevate feet • evaluate mental status (ask who, where, when questions) • call 911 if not feeling better within a few minutes
Heat stroke	• any of the above, but more severe • sweating may or may not be present • red or flushed, hot dry skin • bizarre behavior	• **call 911** • move person to a cooler place (do not leave alone) • cool worker rapidly

	• mental confusion or losing consciousness • panting/rapid breathing • rapid, weak pulse • seizures or fits • can be fatal	• if conscious, provide small amounts of water to drink • loosen and remove heavy clothing that restricts evaporative cooling • fan person, spray with cool water, or apply a wet cloth to skin to increase evaporative cooling • lay flat and elevate feet • monitor airway and breathing, administer CPR if needed

In the event that medical treatment is needed beyond first aid and 911 must be called we will a crew member will call 911 from cell phone, crew member will radio main office to call 911, or a foreman will call 911.

Directions to the worksite will be posted.

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
Training in the following topics will be provided to all employees who may be exposed to a heat-related illness hazard:

- The environmental factors that contribute to the risk of heat-related illness;
- Awareness of personal factors that may increase susceptibility to heat illness;
- Absolute Comfort Technology, LLC procedures for identifying, evaluating, and controlling exposure;
- The importance of removing personal protective equipment during all breaks;
- The importance of frequent consumption of small quantities of water, 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 in the performance of their duties;
- The importance of acclimatization;
- The different types of heat-related illness and the common signs and symptoms of heat-related illness;
- The importance of immediately reporting to Absolute Comfort Technology, LLC, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in coworkers;
- Absolute Comfort Technology, LLC procedures for responding to symptoms of possible heat-related illness, including how emergency medical services will be provided should they become necessary;

- The purpose and requirements of this standard; and
- The worker's right to receive the protections provided by this standard.

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" – means the body's temporary adaptation to work in the heat that occurs gradually as a person is exposed to it.

"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.

PERSONAL PROTECTIVE EQUIPMENT

In support of the Absolute Comfort Technology, LLC policy of providing employment free from recognized hazards, each project will be analyzed for potential exposure to determine employee protective equipment requirements. Protective equipment will only be used when the hazard cannot be eliminated by other means.

Head Protection

Hard hats will be worn at all times in the construction area. This is to protect against possible head injury from impact, falling objects or electrical shock.

A. All purchase orders will reflect compliance with American National Standards Institute (ANSI)Z89.1, "safety Requirements for Industrial Head Protection"

B. Helmets for high voltage electrical shock protection will comply with ANSI Z89.2.

Hearing Protection

Hearing protection devices will be provided and worn whenever the noise exposure exceeds 85Dba for an 8-hour period.

A. Since measuring devices are not normally available at the work site, hearing protection will be issued and worn whenever high noise activities such as jackhammer operations are taking place.

1. The noise level is probably too high if it is necessary to shout while trying to conduct a normal conversation.

Eye and Face Protection

Safety glasses will be worn at all times in the construction area. Other eye and face protective equipment will be utilized whenever there exists an extreme hazard due to physical, chemical or radiation agents.

A. All eye and face protection equipment will meet the standards of ANSI Z87.1.

1. Prescription glasses do not normally meet the ANSI standard.

B. When flying particles present a hazard to the face as well as the eyes, a full-face shield is required.

C. Welding and cutting activities require the use of shaded lenses to suit the radiation generated.
    1. Flash glasses will be worn by personnel in the immediate area when flash burn potential exists (welders or helpers working side by side).

Foot Protection

Suitable work shoes or boots in good repair, made of leather or equally firm material, will be worn at all times in the construction area. This is to protect from injury to feet due to falling or moving objects, burning, cutting, abrasives, and penetration, etc.

A. Canvas type tennis shoes are prohibited.
B. Open toe or heel sandals are prohibited.
C. Soles and heels will be made of a material, which will not create a slip hazard.
D. Safety shoes are recommended.

Safety Coordinator

His/her responsibilities include:

- Publish a signed “Safety Policy” that reflects senior management’s commitment to employee safety and loss control.
- Assure that a written company Safety and Loss Control Manual is developed and updated as necessary. Designate specific responsibilities for carrying out policies and procedures.
- Conduct or delegate hiring procedures, which include completion of a job application, checking of references and documentation of New Employee Orientation and Training.
- Support safety efforts through personal example and by providing a budget and personnel to carry out the safety program.
- Review company accident statistics on a regular basis, to establish and support accident prevention goals.
- Support an employee incentive program, with recognition and/or rewards for successful safety efforts (optional).

Safety Violation/Discipline Policy

Requirements

A safety violation shall be issued for infractions of any regulation found in Company, owner, general contractor, or other safety program which applies to any Company project. Safety violations can also be issued for not passing OSHA, State, Company, or Insurance Company Inspections.

Field supervisors shall regularly inform employees of the safety violation program. This shall be addressed in the safety orientation with each new hire.

Safety violations are categorized according to the severity of the violation. The three categories are:

a. Verbal Warning
b. Written Warning
c. Discharge

Warning periods will remain in effect for a period of exactly six months from the date of violation and will become part of an employee's personnel file. Upon satisfactory completion of the six-month warning period, the safety violation will be removed from the employee's record. A copy of the safety violation shall be issued to the employee in violation and an additional copy of the safety violation shall be kept on file at the office. Upon the issuance of a safety violation, immediate corrective action shall be taken.

Verbal Warning

A minor violation of the safety program that would probably not result in death or serious physical harm. Repeated violations during the six-month period following the verbal warning will result in a written warning; continued violations will result in discharge.

Examples of verbal warnings are as follows:

a. Failure to report an accident
b. Improper record keeping/documentation
c. Failure to wear non-critical personal protective equipment
d. Improper storage of materials or equipment

Superintendent Responsibilities

1. Assure that the company's operations are in compliance with WAC 296-155 (Safety Standards for Construction Work) and WAC 296-62 (Occupational Health Standards), as administered by the Washington Industrial Safety and Health Act (WISHA).
    a. Complete a WISHA Program Checklist at the start of each job/project.
2. Develop a list of safety rules and safe work practices for all non-craft workers.
    a. Clarify safety rules during new employee's file
    b. Clarify disciplinary measure for lack of compliance
3. Conduct and document employee orientations on a New Employee Orientation Checklist, placing a signed copy in the employee's file
    a. Assure that workers receive PPE and job-specific safety training by Foremen during initial and new work assignment
4. Attend weekly safety meetings, providing current safety reports at each meeting.
    a. Respond to safety meeting recommendations, assigning corrective action as soon as possible or explaining why they cannot be made.
    b. Review, sign and post safety meeting minutes
    c. Maintain a file of safety meeting minutes for one year
5. Conduct or delegate scheduled safety inspections for Foremen
    a. Provide written forms for documenting safety inspections
    b. Conduct periodic safety "walk-through" inspections
6. Train foremen in their supervisory role and monitor their fulfillment of all assigned safety responsibilities.
7. Conduct investigations and complete written reports for all accidents and/or employee injuries within 24 hours.
    a. Forward accident reports to the company claims coordinator
    b. Discuss accident investigations at weekly safety meetings
    c. Maintain accident statistics for the OSHA 200 Log and (opt) for the company safety incentive program.
8. Arrange temporary light duty work for injured employees who are unable to return to regular duty within 3-5 days of injury
    a. Prepare physical job descriptions for light duty and provide this information to the Claims Coordinator
    b. Assure that recovering employees assigned to modified duty and their Foremen understand the work restrictions and abide by them.

9. Administrate the company's written Worker's Right-To-Know Program
    a. Post a R-T-K program description on the jobsite bulletin board
    b. Make the written R-T-K program available to workers on the jobsite
    c. Have Material Safety Data Sheets (MSDS) available to all workers
    d. Provide a R-T-K orientation and chemical training for each worker
    e. Provide new MSDS and training if new chemicals are introduced

WORKPLACE VIOLENCE PREVENTION PROGRAM

Absolute Comfort Technology, LLC is concerned and committed to our employee's safety and health. We refuse to tolerate violence in the workplace and will make every effort to prevent violent incidents from occurring by implementing a Workplace Violence Prevention Program (WPVP). We will provide adequate authority and budgetary resources to responsible parties so that our goals and responsibilities can be met.

All employees should be treated with courtesy and respect at all times. Employees are expected to refrain from fighting, horseplay, or other conduct that may be dangerous to others. Employees are prohibited from bringing weapons on to our premises or job sites. Employees are also prohibited from having weapons readily accessible off premises, for instance in a vehicle driven to work. This policy applies to weapons of all kinds, including guns, rifles, knives, and to related paraphernalia, such as ammunition. Carrying mace, pepper spray, or the like for defensive purposes however is not a violation of this policy.

Conduct that threatens, intimidates, or coerces another employee, customer, or member of the public at any time, will not be tolerated. This prohibition includes all acts of harassment, including harassment that is based on an individual's sex, sexual orientation, marital status, race, color, national origin, citizenship status, creed, religion, age, disability, political ideology, or any other reason.

All threats or acts of violence, both direct and indirect, should be reported immediately to the superintendent or office administration personal. This includes threats by fellow employee's, as well as threats from customers, vendors, solicitors, or other members of the public.

Absolute Comfort Technology, LLC will promptly and thoroughly investigate all reports threats of violence and harassment. All reports will be kept confidential to the fullest extent possible. Anyone whom we conclude has violated our anti-harassment policy is subject to corrective action up to and including immediate discharge. Corrective action will depend on the severity of the offense. We will take whatever action we deem necessary to end the harassment and prevent an offense from being repeated.

Absolute Comfort Technology, LLC will not permit retaliation against anyone who makes a good faith complaint or who cooperates in good faith with an investigation.

Absolute Comfort Technology, LLC has the right to search any area on company premises on any job site under Absolute Comfort Technology, LLC contractual control for weapons including, but not limited to, lockers, furniture, containers, drawers, equipment, lunch boxes, briefcase, personal bags, personal toolboxes, toolkits, parking lots, and vehicles parked on property under control of Absolute Comfort Technology, LLC.

If an employee is injured while engaging in or instigating a fight the entitlement to workers compensation benefits may be denied.

Definitions

- Crimes of Violence
    - Includes any degree of murder, voluntary manslaughter, rape, mayhem, robbery, burglary, aggravated assault, physical or verbal threats, and battery
- Weapon
    - Includes an explosive device, or explosive weapon, a device principally designed, made, or adapted for delivering or shooting an explosive weapon, a machine gun, a short barrel rifle or shotgun, a handgun, a firearm silencer, a switchblade knife or metal knuckles, or any other implement for the infliction of bodily harm or death.
- Workplace
    - Includes all property owned or occupied by Absolute Comfort Technology, LLC, all job sites, job offices, and trailers.
- Possession
    - Includes but is not limited to, the presence of a weapon on the employee's person, in his/her motor vehicle, lunch box, tool kit, purse, desk, cabinet, office, or other location under company control.

Prohibited Activities

- Use, possession, or sale of weapon(s)
- Storing any weapon in a locker, desk, vehicle, lunch box, tool kit, bag, or other repository on the work site or any company premises
- Illegal possession, use, or sale of a weapon off company property that adversely affects the safety of an employee or the safety of others at the place of employment or indicates a propensity for the same.
- Refusing to submit to an inspection for the presence of a weapon that is requested by Absolute Comfort Technology, LLC.
- Refusing to participate in an investigation pertaining to allegations or suspicion that violence has or is likely to occur, or an investigation pertaining to the carrying of a weapon by an employee.
- Verbal or physical threats, threatening gestures or statements.
- Fighting

Absolute Comfort Technology, LLC in its discretion, may, from time to time, modify this policy in order to meet special conditions that arise.

Reporting

All incidents must be reported within twenty-four hours of notification of an incident. An "Incident Report Form" will be completed for all incidents. Superintendents may fill out an accident report form with the necessary information. A copy will be forwarded to the Safety Coordinator.

The Project Manager, Regional Manager, and Safety Coordinator will evaluate the incident. They will make recommendations on how to revise the program to prevent similar incidents from occurring. All revisions of the Program will be put into writing and made available to all employees.

Absolute Comfort Technology, LLC will not permit retaliation against anyone who makes a good faith complaint or who cooperates in good faith with an investigation.

ON THE JOB

Separation from Employment

Separation from employment (termination), may occur due to resignation, discharge, reduction-in-force, retirement, or death. The nature of Absolute Comfort Technology, LLC work is such that work in particular regions of the country is often irregular, sporadic and of short duration. Absolute Comfort Technology, LLC may discharge you, due to a reduction in force, and will select employees for reduction, in a fashion that does not discriminate in violation of the law. If work becomes available again, Absolute Comfort Technology, LLC is not obligated to recall terminated employees or inform them of position openings before considering other applicants.

You may also be discharged as outlined in within Absolute Comfort Technology, LLC Employee Handbook

I hereby acknowledge Absolute Comfort Technology, LLC accident prevention plan and will abide by the APP at all times.

Employee Print: _____

Employee Sign: _____

Date: _____

Witness Print: _____

Witness Sign: _____

Date: _____