COMPANY
POLICY STATEMENT

PURPOSE

To formally communicate Westlund Concepts position on Occupational Safety and Health.

SCOPE

This Company Safety Policy applies to all divisions, subsidiaries, and companies of Westlund Concepts LLC.

RESPONSIBILITY

A copy of the Company Safety Policy Statement will be posted on all safety bulletin boards and will be covered in the new hire safety orientation.

WESTLUND CONCEPTS LLC
COMPANY HEALTH AND SAFETY POLICY

The safety and health of all employees is our highest priority. The individual and collective safety of all employees of this company is of primary importance. In all of its operations, the company is guided by an established health and safety program. Safety shall be practiced by all personnel at all times to satisfy our moral and legal responsibilities. Therefore, by maintaining a good safety record, and controlling our insurance costs, we can hold our competitive position within our industry.

It is the company's goal to always maintain an effective safety program to guard against accidents, injuries and illnesses. All members of management and supervision are charged with the responsibility of preventing incidents or conditions that could lead to occupational injuries or illness and for developing the proper attitude of employees toward accident prevention, instructing employees in the recognition of hazards and insuring that all operations are performed with the utmost regard for safety.

While the ultimate success of a safety and health program depends upon the full cooperation of each individual employee, it is management's responsibility to provide a safe environment in which to work. Health and safety must be considered an integral part of quality control, cost reduction and job efficiency. Every supervisor will be held accountable for the safety performance demonstrated by employees under their supervision.

The Health and Safety Program is designed to reduce the number of injuries to a minimum. Unfortunately, when accidents occur every segment of our operation, as well as the lives of our workers and their families, suffers. Therefore, our Health and Safety Program shall be interwoven into every phase of the business and will be enforced uniformly, consistently and swiftly.

Doug Westlund

President

WESTLUND CONCEPTS CO., INC.
SAFETY DIRECTOR MANAGEMENT STATEMENT

Westlund Concepts dedication to safety has been a core value of our company and reflects the fundamental respect we have for our employees, equipment, clients, and the environment. We aim to meet and exceed the industry standards for health and safety and maintain our goal of ZERO accidents, injuries, or illnesses.

It is Westlund Concepts obligation and responsibility to conduct all its operations in the safest manner possible. However, we cannot do it alone. All employees have the obligation and responsibility for safety. To help empower our employees to make safe decisions, they will continue to be provide with the highest level of training, and the best safety equipment available to assist in achieve these goals.

I will make continue to myself available at any time to discuss any safety concerns and I assure all that I want to hear from you because I realize that the only way we can succeed is by working together. I am certain that with your insight and cooperation the only reason for Westlund Concepts employees to leave this industry will be by choice not by accident.

Kyle Kadinger

Company Safety Director

SAFETY PROGRAM RESPONSIBILITY

PURPOSE

An effective safety program includes a complete and clear description of safety responsibilities for all employees. It is important for all employees to understand not only their responsibilities, but also the responsibilities of fellow employees.

SCOPE

This procedure applies to all Westlund Concepts facilities and on-site construction and maintenance projects.

RESPONSIBILITY

OWNER

- Review safety activities weekly with Safety Director, including accidents, accident investigations and Safety Committee issues.
- Written directives to be issued when deficiencies are found, including dates by which corrective action will be taken and disciplinary action to be taken in cases of non-compliance with safety rules and goals set.
- Will annually review our anticipated Safety Budget and adjust our overhead to accommodate our safety needs, which will be incorporated into each job. Safety will never be compromised due to financial considerations.

SAFETY DIRECTOR

- Establish annual company safety goals.
- Will report the Owner of the company on a weekly basis.
- Monitor all safety and workers' compensation statistics.
- Update Safety Policies and Procedures Manual annually.
- Manage special safety programs.
- Evaluate and approve safety equipment and personal protective equipment for use at all sites.
- Promote safety.
- Conduct documented new hire safety orientation.
- Distribute safety-related publications and reports.
- Monitor Safety Program activity at all projects.
- Conduct project safety audits at least twice per year for each location.
- Assure timely and accurate accident reporting.
- Communicate safety information to employees, including any hazards exposed during inspections or by other means.
- Recommend improvements in the Safety Program.
- Review all accidents and investigation reports.
- Track all safety and workers' compensation statistics and analyze trends. Take appropriate actions to eliminate trends.
- Assist Construction Manager and Job Site Leads with safety activities and reporting issues.
- Enforce all safety policies and procedures.
- Conduct safety inspections when at the site.

- Follow up on all reported safety violations to ensure corrective action taken.
- Ensure that all Project Managers take an active role in promoting and enforcing safety. Review performance semi-annually and report results to the Owner/President and Field Superintendent.
- Review all accident investigation reports and determine what follow-up action is taken.
- Chair the Company Safety Committee meetings, consisting of representatives of management, shop and field employees. Review items from Safety Suggestion Box with committee.
- Attend weekly briefings with the company President and management staff at which time all safety related items will be shared.
- Maintain a current knowledge of all company environmental, safety and health policies (including OSHA 10 & 30 Hour training) and procedures, and have a good working knowledge of Federal, state, and local safety regulations and standards (OSHA Code of Federal Regulations 1910 and 1926).
- Maintain knowledge of current state-of-the-art concepts of accident prevention.
- Investigate all accidents, injuries, fires, property damage, and other safety and environmental related incidents and insure the required reports in a timely manner.
- Maintain the project site injury record keeping system (OSHA 300 Log, First Aid Log, and records per individual injury case where medical expense arises or is expected to occur).
- Classify all occupational injuries and illnesses per OSHA Record Keeping Practices (includes factual, alleged and/or exaggerated injuries or illnesses).
- Accompany the inspector and properly document any events arising out of OSHA inspections, corporate safety audits and other formal type safety inspections conducted at the project site by outside agencies.
- Review and approve/disapprove any required job-made tool.
- Administer employee Incentive/Award Program.

INSTALL MANAGER & LEADS

- Ensure all accidents are reported, thoroughly investigated and corrective action taken.
- Set an example of safe working habits and follow all safety regulations.
- Responsible for all Project safety matters, enforce all safety policies and procedures.
- Ensure that all employees understand the safety policies and procedures.
- Conduct weekly safety training sessions.
- Conduct a weekly safety inspection.
- Coordinate project site safety effort with the Client's safety requirements.
- Administer Project Site Safety Policies and Procedures within the framework of the Corporate Safety Procedures Manual with particular emphasis on potentially hazardous operations.
- Communicate to Corporate Safety Director the progress of the Project Site Safety program and make recommendations for site-related improvements.
- Initiate and implement programs for the accomplishment of short and long-range site safety objectives.
- Plan the Project Site Safety Program so that the timely implementation of required safety policies and procedures will be achieved.
- Be familiar with the Project Site Hazardous Waste Program.
- Initiate, implement, and administer safety training in accordance with established project site requirements.
- Monitor the corporate rigging procedures for compliance in maintaining and controlling site rigging equipment.
- Prepare all required project site accident, injury reports, safety programs, and distribute to site personnel and corporate personnel.

- Investigate all accidents, injuries, fires, property damage, and other safety and environmental related incidents and issue the required reports in a timely manner.
- Assist subcontractors with their safety programs in order for each to meet the project site requirements.
- Monitor the administration of the project site first aid services and develop emergency rescue services.
- Evaluate the need for and requisition personal protective equipment, fire protection equipment and other safety-related equipment to meet the project site's needs during construction operations.
- Display and maintain publicity materials on site bulletin boards, posters, safety signs, banners, and distribute safety literature.
- Perform and carry out any other assignments delegated by the construction manager.
- Responsible for the safety of their employees as well as the safety of others who may enter their work area.
- Communicate and enforce all safety policies and procedures within their operations.
- See that injuries are promptly treated and reported.
- Assist in training new and established employees and see that employees are trained prior to being assigned to a task.
- Inspect work areas and equipment daily to ensure that work practices and equipment meet established safety standards.
- See the essential safety devices and personal protective equipment are provided and used.
- Take immediate corrective action whenever unsafe conditions are noted.
- Be familiar with the laws pertaining to safety and their basic requirements.
- See that the Safety Program is carried out at the work level.
- Take immediate action on unsafe conditions reported by workers.
- Conduct weekly toolbox meetings.

EMPLOYEES

- Read, understand, and follow all company safety policies and procedures.
- Perform all duties in a safe manner. Do not perform duties you have not been trained in.
- Report all unsafe acts and conditions to the Install Manager, Lead and or Safety Director. You may do so by phone text e-mail or mail.
- Report all accidents immediately.
- Wear all personal protective equipment that is require and maintain the equipment in good condition.
- Set an example of safe working habits and follow all safety regulations.
- Participate in all safety training sessions and toolbox meetings.

PROCEDURE

All levels of management and supervision are charged with the responsibility of preventing conditions that could lead to occupational injuries of illness. While the ultimate success of our safety and health program depends upon the full cooperation of each employee, it is management's responsibility to see that safety and health rules and procedures are adequate and enforced, and to see that effective training and education programs are employed to the best advantage.

BARRICADING & SAFETY SIGNAGE

PURPOSE
To define the different types and uses of Barricading and Safety Signage.

SCOPE
All barricading and Safety Signage shall be maintained in good condition and provide by the contractor.

PROCEDURE

- Contractors will provide all necessary barricades, safety signs, stanchions, safety cones or safety warning tape as required to isolate and protect unsafe work areas from workers, pedestrians or vehicle traffic on this jobsite.
- Where caution (yellow) warning tape or yellow chain is used as barricade material, signs denoting the hazard shall be secured to the barricade. Contractors are allowed to pass or cross caution tape only after assessing the hazards posted on the signage. Caution tape and signs shall be erected around all sides of the controlled area, and at each access point.
- Where danger (red or red and white) tape or red chain is used as barricade material, signs denoting the hazard shall be secured to the barricade. Personnel, except those engaged in the operation for which the tape/signs were erected, are not allowed to pass or cross danger tape. Danger tape and signs shall be erected around all sides of the controlled area, and at each access point.
- Adequate and safe passage shall be established for workers at the active construction site to ensure effective separation between vehicular paths and walkways. Appropriate caution and warning sign shall be installed at crossings and when necessary, a flagman may also be used to control the traffic flow.
- The walkways shall meet the applicable safety standards, including but not limited to proper barricade and floor/ground demarcation.
- All barricading/signage will be removed after work is complete and hazard is eliminated.
- Active Construction Site Exiting Requirements: Until the permanent Emergency Exit Signs have been installed at an active construction project, temporary EXIT signage shall be posted.
    - Locate the EXIT signs at every designated and completed EXIT.
    - Evacuation route signs must be located as necessary to ensure personnel are directed to a safe location, care should be taken to ensure that EXIT signs and Evacuation routes do not place the personnel into a more hazardous area such as an unfinished stairwell, discharge personnel into an open pit or other area deemed to be unsafe.
    - Provide additional EXIT signage in any areas that the EXITs are not easily visible, or become obstructed as interior walls and equipment is installed.

FALL PROTECTION

PURPOSE

The purpose of this fall protection program is to protect employee from the hazard of falls from elevated surfaces.

SCOPE

This procedure applies to all Westlund Concepts facilities and onsite construction and maintenance projects and has been written to comply with the OSHA standard 29 CFR 1926 – Subpart M.

RESPONSIBILITIES

- All levels of supervision are responsible for implementing and administering this procedure.
- Foremen are responsible for complying with this procedure as it relates to their subordinates.
- Employees are responsible for complying with the WC Safety Program, Project Safety rules, and the instructions issued by the employee's Manager.

PROCEDURES

Fall protection systems must be provided when working under any of the following circumstances.

- Unguarded walking/working surfaces of 6' or more in height.
- Hoist area - when an employee must lean through an access opening or out over the edge of an area not guarded by handrail.
- Open ramps and/or runways (with a drop off of 6' or more).
- Excavations - where exposed to a depth of 6' or more and the excavation cannot readily be seen due to plant growth or other visual barriers.
- When reaching more than 10" below the level of a walking surface (Ref. 1926.501 (B) (9) (ii)).
- Wall openings - working on, at, above or near wall openings (including those with chutes
- attached) where the outside bottom edge of wall openings are 6" above lower levels of the working area.
- Edge of the wall openings that are 6' above lower levels of the working surface.
- Work on the face of formwork or reinforcing steel when above elevation.
- Roof work:
    - Different methods of fall protection will be utilized for all types of roof work. For purposes of identifying required method below find the definition of low and steep pitch roofs
    - Low pitch = < 4 to 12 Steep pitch = > 4 to 12
    - Refer to WC Site Specific Plan for methods.

TYPES OF FALL PROTECTION SYSTEMS THAT MAY BE UTILIZED

- Guardrail Systems - Height - 42" (+ or -3" is acceptable) mid rails and toeboards shall be a part of the guardrail system. Ends of all top rails and mid rails should not over hang terminal posts. Where protection is needed from objects falling through holes, screening shall be used. If wire rope is used, it shall be flagged at 6' intervals. When guardrails are used around holes which are used as access points (ladder ways) they shall have a gate or be offset so that a person cannot walk directly in the hole.
- Open holes, including skylights, shall be protected by secured covers. Secured means nailed down to avoid removal without express permission from the supervision. Covers must be capable of supporting

two times the intended weight, i.e. employee or equipment traffic. Covers shall be marked with paint "cover" or "hole".

- Safety nets shall be installed as close as practical under walking/working surfaces- but in no case more than 30' below. Nets shall be installed with sufficient clearance under them to prevent contact with the surface below. When used under bridges, the potential fall area from the work surface to the net shall be unobstructed. Nets shall be drop tested prior to the start of work. When tools or materials fall into the nets, they shall be removed immediately.
- A written Fall Protection Plan is required for work activities which may limit the use of conventional fall protection systems.
- Personal Fall Protection Equipment - Body harnesses and shock absorbing lanyards. Effective June 1, 1995 body belts are not acceptable as part of a personal fall arrest system.
- Body harnesses shall be rigged such that an employee can neither free fall more than 6' nor contact any lower level.
- Lanyards shall be attached in the center of the back.
- Positioning Devices - Body harness systems shall be rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning. The positioning device shall be rigged such that an employee cannot free fall more than 2'. (Free fall means the act of falling before a personal fall arrest system begins to apply force to arrest the fall).
- When using vertical lifelines, each employee shall be attached to a separate line.
- Harness and lanyard anchor point/equipment requirements:
    - Inspect equipment prior to each use.
    - Snap hooks shall be a locking type and shall not be engaged,
        - Directly to webbing or connected back on its lanyard.
        - To each other
        - To a lead ring to which another snap hook or other connector is attached
        - Any object that is incompatibly shaped in relation to the snap hook
    - Shall not be attached to handrails, scaffold brackets or hoists.
    - Lanyard attachment to harness shall be located in the center of wearer's back near shoulder level.

TRAINING

- Employer shall provide training for employees who may be exposed to fall hazards. The training will be taught by a competent person who is able to:
- Recognize fall hazards
- Know the correct procedures to minimize hazards
- Know the correct procedures for erecting, disassembling and inspection of fall protection systems
- Follow the proper use of safety net systems
- Know when guardrails are required
- Know the limitations of the equipment
- Know when safety-monitoring systems are needed
- Know the correct storage and handling of harnesses and land yards
- Understand and impart to the employee their role in fall protection

Training will be documented to include date, names and signature of trainer. Training records will be maintained at the WC office.

FIRE PREVENTION & HOT WORK

PURPOSE
To define the different methods that will be used to assist with Fire Prevention.

SCOPE
All Fire Prevention procedures must be followed. All equipment associate with Fire Prevention on this Jobsite must be provided and maintained by the contractor.

PROCEDURE

- Smoke only in designated areas. Extinguish matches tobacco products and place them in approved containers.
- Minimize the amount of flammable liquids/gases in the work area to a single work shift supply.
- Close containers of flammable liquids when not in use. Report spills and any indication of excessive flammable vapor/gas concentrations immediately.
- Obtain the necessary permits when performing hot work or disabling fire protection systems.
- Make sure materials and equipment do not block the access to extinguishers and fire protection hoses, hydrants, and standpipes.
- Ensure materials are kept at least 18 inches (0.5 meter) from sprinkler heads.
- Attempt to extinguish small fires (trash can size) only if trained to do so. If trained to extinguish fires, familiarize yourself with the location of fire extinguishers in the area.

Fire Extinguisher Requirements

- Extinguishers shall be provided in buildings under construction once one of the following conditions exists:
    - a second story or roof has been installed – though not necessarily completed - over the foundation;
    - the exterior walls have been erected and closed in.
- The portable fire extinguishers shall be dry or wet chemical, and shall be rated for Ordinary Hazard Occupancy.
- Each portable fire extinguisher shall have a minimum 2A:20BC rating, and shall be spaced on an interval not to exceed 3,000 square feet per extinguisher.
- Maximum travel distance to any fire extinguisher shall not exceed 100 feet.
- Transition to providing fire extinguishers at permanent locations and spacing is not necessary until the building/rooms are completed and meet room readiness requirements. All cabinets and mounting hardware for the permanent fire extinguishers shall be marked as ‘not in operation’ or equivalent, until the permanent extinguishers have been installed.

Hot Work Permit

- A Hot Work Permit is required any time work involves the use of open flame or spark producing equipment. This includes welding, cutting burning, grinding and or soldering operations.
- Prior to commencing work, all work specific/area hazards must be understood and communicated and all appropriate permits will be obtained.
- All appropriate permits will be posted in the area of the work.
- All personnel in the surrounding work area must be properly warned of the hazardous work area by the use of barricades or other communication means.

- Prior to work, within 35 feet of work area:
  - Flammable liquids, dust lint and oily deposits are to be removed
  - Explosive atmosphere is eliminated or if not possible, monitored
  - Floors swept clean
  - Combustible floors wet down, combustibles in the area removed or covered with fire resistive protection
  - Floor and wall openings covered
- A fire watch must be present for one hour after completion of the work.
- All fire watch personnel will be trained in the use of the fire protection equipment and fire watch duties.

Red Tag Process

- Obtain the proper permits and approvals before conducting work that could affect fire detection and suppression systems.
- Permits must be closed after work is completed.
- Permits may not be modified; new permits must be approved.
- Participants must be trained to the level of their responsibilities (i.e., buddy, fire watcher).
- Everyone working in the impaired area must be briefed on the hazards present and precautions to be taken.
- All available sprinklers, fire hose systems and extinguishers will be in service and operable.
- Additional safety measures must be taken when hot work or energized electrical work is conducted in an area that has an impaired fire system.

Welding, Cutting, & Brazing

- Protection of the eyes, face, neck, and hands is required during welding.
- Only natural fiber clothing may be worn on the upper body extremities. A leather apron or full body leathers is recommended.
- Respiratory protection is not required for most welding jobs if proper ventilation is provided.
- Welding screens are required to protect adjacent workers from exposure to non-ionizing radiation.
- Adjacent workers are required to wear appropriate eye protection where screens are not feasible.
- Welder's assistants and those working inside the screened in area must wear appropriate eye protection.

HAND & POWER TOOLS

PURPOSE

The purpose of this hand and power tool safety program is to ensure that all employees are provided the proper tools and training to perform their job specific task in a safe effective manner.

SCOPE

This procedure applies to all Westlund Concepts facilities and onsite construction and maintenance projects.

INTRODUCTION

Recognizing the hazards or potential hazards associated with tools and machinery in the workplace is fundamental to safety and health. There are various distinct "motions" or "actions" associated with machinery and each one presents a different hazard.

- Rotating - an action that results in motion either clockwise or counterclockwise on its axis.
    - Examples include vehicle engine fans, shop fans, the wheel of a vehicle, and a grinding wheel.
- Reciprocating - an action which results in an alternating backward and forward motion.
    - Examples include certain saws, articulating pistons, piston-type chucks, etc.
- Transverse Motion - an action resulting in a side-to-side motion.
    - Examples Include convex polishing machines, windshield wipers, etc.
    - The hazards associated with rotating, reciprocating and transverse motions are found at the point of operation where work is actually being performed, or at the points where power and motion are transmitted or transferred from one part of a mechanical linkage to another.
- Cutting - an action which results in the division of an object into parts or segments. The hazards associated with cutting include exposure to the actual cutting device or mechanism. Selection of proper personal protective clothing and equipment will help protect you from contact with the shavings, chips, and dusts that are a byproduct of cutting.
- Bending - an action which results in the introduction of a curve or bow to an object.
- Shearing - an action that results in the crossing of cutting edges to separate an object.
- Punching - an action for perforating, indenting or for driving out or in an object inserted in a hole, as a bolt or pin.
    - The hazards associated with bending, shearing and punching result when power is applied to a ram to form or trim metal. The greatest hazard exposure is at the point of operation where the dies make contact with the metal.
    - All employees must avoid the area where closure of the dies and die punch points occur.

POLICY

- Following are the general safety policies for the use of a variety of power and hand tools. It is the responsibility of every employee to adhere to these policies whenever operating a power or hand tool, and to ensure they have received all required training prior to using a tool for the first time.
- Guards shall be in place and operable at all times while the tool is in use. The guard may not be manipulated in such way that will comprise its integrity or compromise the protection in which intended. Guarding shall meet the requirements set forth in ANSI B15.1.
- Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists vapors, or gases shall be provided with the particular PPE necessary to protect them from the hazard.

- Any tool which is not in compliance shall either be identified as unsafe by tagging or locking the controls to render them inoperable or shall be physically removed from its place of operation. The Safety Director will facilitate the implementation of this program.

GENERAL RULES

- All power and hand tools shall be maintained in a safe condition whether furnished by the employer or the employee.
- Use the right tool for the job - short cuts and improvising may turn a simple task into a long recovery period. Try to anticipate the tools that will be used for a job and have them at hand.
- Cracked handles, mushrooming ends, torn metal all contribute to an unsafe and defective tool. Replace handles on hammers and screwdrivers when they are cracked, or arrange to have them replaced. File mushrooming ends on chisels and file or replace tools with bent or jagged pieces that are exposed.
- Use each tool in an appropriate and approved way. Applying pressure in the wrong way or using a tool without proper grounds can lead to serious injury.
- Store and carry tools in a safe manner. Sharp tools can cause injury if stored without guarding or when carried in a pocket.
- Every employee using tools shall, in the course of regular inspections, check for defective or damaged tools and advise replacement or repair.
- Using tools safely can help to avoid unnecessary repair or breakage and ultimate injury.
- Operation of machinery and equipment shall conform to the standard operating procedures established by the company who manufactures the machinery or equipment. Operation of machinery and equipment that deviates from this is prohibited.
- Operation of power tools shall also conform to standard operating procedures.
- Operating power tools in a manner that deviates from Standard Operating Procedures is prohibited.
- The safe operation of power tools, machinery and equipment is mandatory at all times.
- Any use of these power tools, machinery, or equipment for work they are not in intended is strictly prohibited and subject to disciplinary action.

POWER AND HAND TOOLS

- HACKSAWS
    - Pressure should only be applied on the forward stroke. Applying too much pressure may result in the blade breaking and injury to the employee. When adjusting the hacksaw, be sure to do so when it is in its frame to prevent breaking or buckling. Do not tighten to the point where pins break off and be sure to install the blades with the teeth forward.
- FILES
    - Never use a file in place of a hammer or pry bar. Grasp file firmly in one had using the thumb and forefinger of the other hand as a guide. Always inspect files for cracks in the handle to avoid puncturing the hand while in use.
- TIN SNIPS
    - Choose a tool heavy enough to cut material easily with one hand while holding the material being cut with the other hand. Always check to ensure the jaws of the snip are adequately lubricated. Glove protection is required.
- SAWS
    - Select the proper saw for the job at hand. A coarse saw with 4 - 5 points per inch should be selected for fast crosscut work on green wood. Select a finer saw for smoother more accurate cutting.

- HAMMERS
  - Check handles to ensure they are free from splinters.
  - Heads must be solid.
  - Use a soft-head, plastic-head, wood-head or rawhide-head hammer when working on hardened steel surfaces.
  - The face of the hammer should always be proportionately larger than head of the tool it is striking (chisel, punch, wedge, etc.).
  - Strike the hammer squarely and always wear eye protection.
  - When using a sledge hammer, choose the proper weight for the job at hand as too light a hammer can bounce off the work creating a hazard and too heavy a hammer can cause physical strain.
  - When prying a nail from wood using a claw hammer, place a block of wood under the hammer head to create additional leverage

- SCREWDRIVERS
  - Always choose the screwdriver to fit the screw. Choosing a sharp edge bit requires less pressure than a dull, rounded edged bit and also will not slip as readily.
  - Never hold the part of the screwdriver doing the work in your hand.
- PLIERS
  - Electrician's pliers must be insulated and anyone performing work with electrician's pliers must wear special work gloves when working on energized lines.
  - Be careful when using side cutting pliers which can cause injuries when short ends of wires are cut, and never use pliers in place of a wrench.
- WRENCHES
  - Select wrenches that fit the nut properly.
  - Do not use a pipe wrench over single head wrenches as this may lead to injury.
  - Routinely inspect wrenches to ensure that the jaws fit, as doing so will prevent damage to the head of the nut and is less likely to slip and cause injury.
- KNIVES
  - Always maintain a cutting stroke away from the body.
  - Never leave a knife open or laying on tables when not in use.
  - When work is completed, place knife in a sheath or close knife and store properly.
- HAND GRINDERS
  - All grinders with stones or discs in excess of 2 inches in diameter must be guarded and be equipped with automatic shut offs.
  - Proper operation and care of grinders includes monitoring where the sparks are thrown (away from others) and care must be taken to not drop or abuse grinders which may cause the stone or disc to become damaged.
  - Ensure that the grinder has been properly lubricated.
- ELECTRIC DRILLS
  - All drills must be double insulated or properly grounded as electric shock is a very real danger when operating a drill.
  - When operating a drill, care should be taken to clamp the material down so that it does not rotate and strike anyone.
  - Always disconnect the drill prior to changing the drill bit and never place hands between the drill and the materials being drilled.

- ELECTRIC SAWS
  - Routinely check the saw guard to ensure it is in proper placement.
  - Keep the power cord away from the stroke of the saw so it is not severed.
  - Grounding prongs are never to be removed from the electrical cord as they are there to ensure safe operation.
- AIR HOSES
  - Although air hoses are not typically considered hand tools, they are a major cause of shop injuries.
  - Whenever possible, suspend air hoses over work area.
  - Protect air hoses located on the ground from vehicle damage.
  - Prior to working on an air hose, always shut off the power.
  - Safety check valves are to be installed on all air hoses for automatic shut off so they do not whip about when they accidentally become disconnected.
- AIR GUNS
  - Air pressure for cleaning purposes must not exceed 30 psi.
  - Air guns have been known to cause death when used improperly. Therefore, extreme caution must be taken when operating an air gun.

HAZARD COMMUNICATION / GHS

HAZARD COMMUNICATION POLICY
Westlund Concepts will comply with OSHA's Hazard Communication standard as laid out in 29 CFR 1910.1200. All employees whose work involves potential exposures to hazardous chemical substances will be informed of the hazards of the substances, will have access to reference material, such as a safety data sheet (SDS), and will receive training in the nature of the hazards and appropriate work practices, protective measures, and emergency procedures. This program describes the tools and methods that will be used to communicate the necessary information.

Westlund Concepts will:
1. Maintain a list of hazardous chemicals present at the site.
2. Maintain a file of, or have access to, safety data sheets (SDSs), or other equivalent reference material, for all raw materials used.
3. Train employees handling or exposed to hazardous chemicals on:
4. The physical and health hazards of the chemicals;
5. Methods of detecting the presence or release of hazardous chemicals;
6. Ways to reduce or protect themselves from exposure to hazardous chemicals;
7. SDS, labeling, and other forms of warning used at the facility; and Hazards or additional exposures associated with non-routine tasks.
8. Inform contractors working here of hazards to which the contractors' employees may be exposed.

RESPONSIBILITIES
The Safety Director is responsible for the coordination of the hazard communication program.

The Safety Director will:
1. Ensure paper SDS files, if applicable, are maintained with current SDSs and are kept in a location accessible to all employees on all shifts. If the electronic SDS file is used, ensure all employees on all shifts have equipment and adequate training for access to SDSs.
2. Ensure employees are trained regarding hazardous materials in their workplace.
3. Ensure records of employee training are maintained for five years.
4. Evaluate chemicals as they are introduced into operations to determine if they meet the definition of "hazardous".
5. Develop and/or provide hazard communication training materials.

Managers, and Leads will:
1. Ensure employees use safe handling techniques with all chemicals in order to minimize exposures.
2. Ensure employees are provided with and use appropriate personal protective equipment.
3. Ensure batch sheets, or similar documents, have appropriate raw material hazard warnings.

Employees will:
1. Use and handle chemicals according to instruction and training.
2. Report problems to a supervisor or Foreman.

HAZARD EVALUATION OF CHEMICALS

The hazard evaluation process for chemicals used is the responsibility of Safety Director.

The Safety Director will review information supplied by the manufacturer of a chemical to make a determination of communication and required PPE.

HAZARDOUS CHEMICAL LIST

The Safety Director will annually update and provide a list of hazardous chemicals to each WC facility and field Foreman.

SDSs

A SDS, or equivalent reference material, for each non-consumer chemical used in processing, maintenance, housekeeping, or office area is required to be kept on file in a location that is accessible to all employees. SDSs provide hazard, physical properties, and first aid information about a chemical. They also supply recommendations for proper material handling and disposal procedures.

If a local paper SDS file is maintained, it is located at front office and it is updated every four years by Tony Welch.

If an SDS is not received with the first shipment of a chemical, the person ordering the chemical must request one from the supplier. If the SDS in question has not been received within 30 days, the person ordering will send a follow-up request, copying the Safety Director.

LABELING & LABELING RESPONSIBILITIES

Labeling provides identification and an initial indication of the potential hazards of a chemical. Labels also provide content identification of drums, bags, bulk containers, and/or pipes containing chemicals.

Westlund Concepts relies on suppliers to appropriately label their product containers. Reference to a comprehensive SDS, or similar reference material, with the same identification as the product label, is required. In the absence of a supplier label, label containers with the name and hazards associated with the substance.

Labeling systems such as GHS, or pictograms may be used in addition to supplier labels. The supplier labels must still be clearly visible on the container, however, and workers must be trained to understand alternate labeling systems.

Hazardous chemical containers at the workplace must be clearly labeled, tagged, or marked in accordance with the Hazard Communication Standard, either with:

1. The product identifier, signal word, hazard statement(s), pictogram(s), and precautionary statement(s); or
2. The product identifier and words, pictures, symbols, or combination thereof, which provide at least "general" information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the Hazard Communication Program, will provide employees with the "specific" information regarding the physical and health hazards of the hazardous chemical.

GLOBALLY HARMONIZED SYSTEM (GHS)

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) is an effort to create a world-wide, universal, chemical hazard communication and container labeling system. The large number of varying chemical hazard identification, labeling, and information requirements around the world create potential barriers to trade in chemicals, particularly for small businesses. A harmonized and consistent approach would have benefits both in terms of worker protection and trade.

The GHS provides standardized definitions for chemical hazards such as flammable liquids. The GHS addresses classification of chemicals by types of hazard and proposes standardized hazard communication elements, including labels, and safety data sheets (SDSs).

The following chart presents the nine-different hazard communication GHS pictograms that are now required as part of the container labeling requirement under the revised 2012 labeling process.

GHS - Hazard Pictograms and Related Hazard Classes

		
Exploding Bomb • Explosives • Self-reactives • Organic Peroxides	**Corrosion** • Skin corrosion/burns • Eye damage • Corrosive to metals	**Flame Over Circle** • Oxidizing gases • Oxidizing liquids • Oxidizing solids
		
Gas Cylinder • Gases under pressure	**Enviroment** • Aquatic toxicity	**Skull & Crossbones** • Acute toxicity (fatal or toxic)
		
Exclamation Mark • Irritant (eye & skin) • Skin sensitizer • Acute toxicity • Narcotic effects • Respiratory tract irritant • Hazardous to ozone layer (non-mandatory)	**Health Hazard** • Carcinogen • Mutagenicity • Reprodcutive toxicity • Respiratory sensitizer • Target organ toxicity • Aspiration toxicity	**Flame** • Flammables • Pyrophorics • Self-heating • Emits flammable gas • Self-reactives • Organic peroxides

THE REVISED OSHA HAZARD COMMUNICATION PROGRAM STANDARD

On March 26, 2012, OSHA published the final Hazard Communication Standard, which harmonized it with the GHS. The revised standard includes requirements for applying the harmonized GHS hazard classifications, format and content for SDSs, and standardized container label elements. Westlund Concepts met all of the phase in dates as laid out by OSHA.

HEALTH, ENVIRONMENTAL, & PHYSICAL HAZARDS

GHS hazard classification criteria were adopted by consensus for physical hazards and key health and environmental classes.

Those for health and environmental hazards are:

- Acute toxicity
- Skin corrosive/irritant
- Serious eye damage/eye irritant
- Respiratory or skin sensitization
- Germ cell mutagenicity
- Carcinogenicity
- Reproductive toxin
- Target organ systemic toxicity - single and repeated dose
- Hazardous to the aquatic environment

The categories describing physical hazards include:

- Explosives
- Flammability - gases, aerosols, liquids, solids
- Oxidizers - liquid, solid, gases
- Self-reactive
- Pyrophoric - liquids, solids
- Self-heating
- Organic peroxides
- Corrosive to metals
- Gases under pressure
- Water-activated flammable gases

TRAINING AND TRAINING RESPOSIBILITIES

Employee training must consist of the types of hazardous chemicals they handle, how the chemicals can be handled safely, as well as other potential hazards associated with their jobs and their work environment. Westlund Concepts will provide this information initially, and regularly, to employees.

Employee training includes:

1. The requirements of the Westlund Concepts Hazard Communication Program.
2. The location and availability of the written Hazard Communication Program.
3. The location and availability of SDSs, or similar reference materials.
4. The physical and health hazards of chemicals used.
5. Symptoms of overexposure.
6. Methods that can be used to detect the presence or release of hazardous chemicals.

7. Measures employees can take to protect themselves from chemical hazards, including engineering controls, work practices, and personal protective equipment.
8. An explanation of the labeling system, safety data sheets, and/or other warning systems used at the facility.
9. Hazards or additional exposures associated with non-routine tasks.
10. The steps Westlund Concepts has taken to reduce or prevent exposures to hazardous chemicals.

Managers, and Leads will:

1. Ensure employees are not assigned to jobs for which they have not been appropriately trained.
2. Ensure any special training needed for non-routine tasks (such as confined space entry or respirator training and qualification) is conducted, including training on chemical hazards, protective measures the employee should use, emergency procedures, and check-off procedures.

Employees will:

1. Attend initial training and annual training thereafter.
2. Ask questions if required to work with an unfamiliar chemical or process.

Safety Director will:

1. Provide training materials on Hazard Communication Standards, hazardous raw materials, and appropriate personal protective equipment. Training materials may include:
    a. DVDs
    b. Booklets/ handouts
    c. Lecture material
2. Provide consultations if specific questions arise related to the hazards of raw materials.
3. Validate that records of annual training are maintained at facilities.

Contractor Notification

When an outside firm is contracted to perform work for Westlund Concepts, WC will ensure that both the contractor and their employees are informed about potential hazards to which they may be exposed during the course of their work.

INCIDENT & INJURY MANAGEMENT

EMERGENCY PROCEDURES

In case of emergency such as a fire, accident or incident, send someone to call it in using the emergency phone n umber located in the office/trailer while you and/or others take care of the emergency. Remember, take care of the problem first and the paperwork second. When an emergency does arise, let the superintendent and/or fore man know about the emergency so they can contact the WC
safety department and fill out the necessary paperwork.

PROCEDURES FOR ACCIDENT/ INCIDENT INVESTIGATION
All accidents (with or without injuries), or incidents, must immediately be investigated. This applies to any accide nt/incident involving employees, subcontractors, customers, trespassers, equipment.

PROCEDURE

- Incident Reports – Employees, subs, customers, trespassers, damaged equipment.
  - First Report of Injury (or loss) – Safety Director
  - Physician's Statement & Medical Release (Community Occupational) – Use if injury requires treatment by Doctor.
  - Pictures – Digital or other pictures.
  - Send a copy of all reports, including pictures, to you the Safety Director for filing.
- When an accident occurs, remember, TREAT THE PATIENT, TAKE CARE OF THE ACCIDENT OR INCIDE NT FIRST, And THEN, DO THE PAPERWORK.
- Report all accidents, injuries and incidents, no matter how small, to your foreman in order to properly take care of the problem.
- All emergency phone numbers shall be conspicuously posted near the phone (i.e., "911", ambulance , doctor, fire department, paramedics, etc.).

The following procedures for first aid recordable and lost time cases are designed to help lower the frequency a nd experience modification rates of WC's workers compensation. When an employee has a job-related injury/illness the following is to take place:

- Every possible effort will be made by the superintendent to treat the injury/illness from the first aid box on the job-site.
- If the superintendent and/or the employee feels further treatment is necessary, the employee will be ta ken to one of WC's approved Occupational Health providers.
- The person who accompanies the injured employee is to instruct the medical provider to send the state ment and a copy of the diagnosis directly to the Safety Director.
- When the injured employee is sent to a medical provider, the superintendent / foreman will notify the WC Safety Director to explain the type of treatment the injured received.
- Once this information has been received, the Safety Director will evaluate the diagnosis to determine, us ing the OSHA guidelines and ANSI 216.4 1977, if the injury is FIRST AID or RECORDABLE.
- A copy of the injury/illness report will be kept on file in case there are any complications and the employ ee needs further treatment.
- If complications occur, the injury will be considered a new accident and the claim will be turned over to t he worker's compensation carrier.

- If an injury is found to be compensable, the claim will automatically be reported to the worker's compen sation carrier by the safety director.

RETURN TO WORK PROGRAM

- To allow an injured/ill employee to remain productive in the workplace and to retain his/her income-earning potential.
- To reduce the number of employee's days away from work because of occupational injuries.

WC LIGHT DUTY WORK POLICY

- Light Duty may be offered to an employee who suffers an injury/illness which prevents him/her from pe rforming their normal work.
- Light Duty may also be offered to an employee as part of a return to work program after a significant inj ury/illness.
- Light Duty work is not guaranteed, but is encouraged when the work is available and medically suitable. Temporary light duty work must be approved by the Safety Director and the Project Supervisor.
- The duration of light duty work will be determined by the Safety Director's and the Project Supervisor's r ecommendations, which will be based on the availability of legitimate work.

INCIDENT INVESTIGATION

Why, When, Who, How, Action: Get the facts. Find the cause. Why must all accidents be investigated? When an accident (or near miss) occurs on a job it indicates that something went wrong. The purpose of investigating the accident is to avoid the possibility of it happening again by finding out what caused the accident. Once the facts have been determined, appropriate action to control or eliminate the cause can be taken. Don't overlook those near misses.

- The accident investigation must be made as soon as possible. The greater the interval of time, the harder it is to get the facts.
- There are three good reasons why you, the supervisor, should get the facts personally.
- Employees under your supervision are your responsibility. This includes responsibility for their welfare and safety.
- When operational procedures can be changed to eliminate the hazard, make the change if it is within your authority to do so.
- Where unsafe conditions are involved, necessitating equipment changes or additional guards, discuss them with management. If help is needed to determine exactly what is required, get advice from your safety specialist or insurance carrier.
- Always make a written report of your findings, using either an accident investigation form or simple memo. Include any action you have taken and recommendations to management. If It Happened Once . . . It Can Happen Again. Find and Remove The Cause Of Accidents.
    - Get the facts.
    - Determine the cause.
    - Decide on a method of prevention.

LOCKOUT / TAGOUT / VERIFY

PURPOSE

The purpose of this lockout / tagout / verify program is to protect employees from unexpected start-up of equipment or injury due to the release of stored energy.

SCOPE

This procedure applies to all Westlund Concepts facilities and onsite construction and maintenance projects and has been written to comply with the OSHA standard 29 CFR 1910.147.

RESPONSIBILITIES

- All levels of supervision are responsible for implementing and administering this procedure.
- Foremen are responsible for complying with this procedure as it relates to their subordinates.
- Employees are responsible for complying with the WC Safety Program, Project Safety rules, and the instructions issued by the employee's Manager.
- Each Superintendent and/or Lead is responsible for the following:
  - Obtaining all locks and tags.
  - Coordinating with Owner representatives what systems are to be isolated and the location to place locks/tags.
  - Assuring that controls are locked out unless it is impossible, at which time a tag out will be used.
  - Coordinating lockout procedures with subcontractor activities.
  - Removing all company locks/tags when work is completed.
  - Ensuring employees are trained in proper methods of locking/tagging out.
  - Administering disciplinary action for violations of the policy.

LOCKOUT/TAGOUT PROCEDURES

- Machinery or equipment capable of movement shall be stopped and the power source de-energized or disengaged during servicing or adjusting.
- On machines or equipment where repair, adjustment or testing cannot be performed with the energy source disconnected, perform under the following:
  - The operating station where a machine may be attended by a qualified operator at all times.
  - All parties involved in the repair or adjustment shall either be in clear view of the operator or in communication with him.
- Electrical Equipment
  - Lockout the main power source.
  - Test after the lockout to assure that if cannot be operated.
- Pipeline Isolation
  - Pipelines may be misaligned by unbolting at a flange and rebolting in a misaligned position.
  - On gas pipelines where double block and bleeds are not available, blinds shall be the primary method of isolation.
- Valves
  - Shall be blocked, but may leak, so double blocking and bleeding shall be used whenever possible.

- Block out procedures for Equipment
  - Air operated, gear driven, hydraulically operating units, or suspended parts of machinery or equipment shall be physically blocked out to prevent movement.
  - Steam, air, gas, hydraulic cylinders, shall be bled down.
  - Gears and other mechanisms shall be blocked out.

PERSONAL PROTECTIVE EQUIPMENT

PURPOSE

The purpose of this personal protective equipment program is to ensure that all employees will be provided Personal Protective Equipment (PPE) to protect them from the hazards associated with the job. Westlund Concepts recognizes that PPE is not a substitute for engineering or administrative controls, but should be used in conjunction with these controls.

SCOPE

This procedure applies to all Westlund Concepts facilities and onsite construction and maintenance projects and has been written to comply with the OSHA standard 29 CFR 1926.

RESPONSIBILITIES

It is the responsibility of each Project Manager, Install Manager, Install Lead and employee to ensure implementation of Westlund Concepts safety policy and procedure on Personal Protective Equipment. It is also the responsibility of each Westlund Concepts employee to report immediately any unsafe act or condition to his or her Manager.

HAZARD ASSESSMENT AND PPE SELECTION

Safety and or Supervision will conduct a walk-through survey of each work area to identify potential hazards. Each survey will be documented using the Hazard Assessment Form. A guideline for filling out the assessment follows the actual form. The hazard assessment should be dated and signed as the written certification and maintained for inspection. Additional assistance may be obtained contact the Westlund Concepts Safety Department.

PROTECTIVE DEVICES

All PPE will be appropriate for the work to be performed and maintained in a clean condition. Equipment must meet American National Standards Institute (ANSI) standards. Gloves must be selected based on style, size and performance characteristics of the glove in relation to the hazards encountered.

TRAINING

Employees who wear PPE shall be trained in the following:

- Which PPE is necessary
- When PPE is necessary
- How to properly adjust and wear their PPE
- The limitations of the PPE
- The proper care, and maintenance of PPE
- The proper disposal of the PPE

Training will be provided prior to the employee working in an area requiring the use of PPE. Additional training is needed when:

- Changes in the employee's job duties require different PPE.
- Changes in the style or type of PPE used renders the previous training obsolete.
- An event has occurred which indicates the affected employee has not retained the training on the proper use of the PPE.

- The employee is observed incorrectly using the assigned PPE.

A training certificate will be kept for each employee. The certificate will contain the name of the employee trained, date of training and identify the PPE covered in the training.

EYE AND FACE PROTECTION
Employees must use appropriate eye or face protection when exposed to hazards from flying particles, liquid chemicals, acids or caustics, chemical gases or vapors, or injurious light radiation. Eyewear shall comply with ANSI Z87.1 as indicated by labels on the PPE. When there is a hazard from flying objects, side protectors meeting ANSI standards must be used.

Those employees wearing prescription glasses need to wear approved safety glasses that incorporate the prescription into the glasses or wear goggles over the prescription glasses.

Visitors, contractors, or others passing through an identified eye hazard area need to wear appropriate eyewear also. A supply of visitor safety glasses should be available for use.

OCCUPATIONAL FOOT PROTECTION
Employees working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole shall wear protective footwear. All safety footwear shall comply with ANSI Z41-1991. Examples where this protection is needed includes:

- General Construction Work
- Demolition
- Shop work and Fabrication

HEAD PROTECTION
All employees must wear a hard hat when there is a danger from impact and/or penetration from falling objects in any work location. Where there is a possibility of hitting the head on protruding objects, duct work pipes, a hard hat may be worn.

HAND PROTECTION
Employees must use appropriate hand protection when exposed to hazards from skin absorption of harmful substances, severe cuts or lacerations, abrasions, punctures, chemical burns, or temperature extremes. A careful evaluation of the hazard must be made due to the enormous variety of gloves on the market. Glove selection will be based on performance characteristics of the gloves, conditions, duration of use, and hazards present. One type of glove will not work in all situations.

In selecting gloves for use against chemicals, the exact chemicals encountered need to be determined. Labels and MSDSs can provide this information. Recommended glove types are often listed in the section for PPE on the MSDS. All glove materials are eventually permeated by chemicals. They can be used safely for a limited time. A manufacturer's glove selection guide is the best reference when selecting gloves.

Protective gloves shall be provided and worn during such operations as chipping, cutting, grinding, and welding. Glove determination of such operations shall be determined by the WC Safety Director, Install Manager, Install Lead conducting the Job Hazard Assessment of the task or operation to be performed.

ADDITIONAL PPE
Guidelines for the selection and use of respirators and hearing protection are available from those specific Westlund Concepts policies.

CLEANING AND MAINTENANCE
It is the employee's responsibility to ensure their PPE is clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. PPE should be inspected, cleaned and maintained at regular intervals as instructed by the Install Manager or Install Lead..

It is also important to ensure that contaminated PPE, which cannot be decontaminated, is disposed of in a manner that protects employees from exposure to hazards.

POWER TOOLS & EQUIPMENT INSPECTION

PURPOSE
To define the use of Power Tools & Equipment Inspection to prevent employees from suffering injury from them by establishing minimum standards for use.

SCOPE

All power tools and equipment shall be maintained in good condition. All contractor equipment shall be inspected daily before use by an operator. Formal, documented inspections of all tools are required on a monthly basis. Copies of inspections must be made available to the site safety manager when requested.

PROCEDURE

- Contractor agrees to document and manage an equipment "red tag" program that clearly identifies equipment taken out of service due to maintenance problems or issues. No equipment shall be used if red tagged.
- Personal Protective Equipment (PPE) shall be defined for use with each class or type of powered equipment and/or tool and provided for use.
- Stationary tools or grinding machines shall be securely mounted to prevent movement and/or injury.
- All portable electrically powered tools need to be grounded or double insulated to prevent electrical shock.
- Compressed air shall not be used for cleaning purposes.
- All pinch points and other machine hazards shall be guarded. All guards as provided by the manufacturer of the tool shall be in place at all times. No equipment shall be used or customized for work other than its originally intended purpose.
- Grand Fault Circuit Interrupter (GFCI) and/or an assured grounding program shall be in place for temporary construction power use.
- Ground plug must be present an all electrically powered tools unless double-insulated.

RIGGING AND MATERIAL HANDLING

PURPOSE

The purpose of this rigging and material handling program is to ensure that all employees will be provided with the proper procedures and equipment to properly lift and move equipment as needed. Westlund Concepts recognizes the potential for serious injury or death while rigging & lifting materials with the help of cranes.

SCOPE

This procedure applies to all Westlund Concepts facilities and onsite construction and maintenance projects.

RIGGING

- The term "rigging" refers to both of the following:
  - The hardware and equipment used to safely attach a load to a lifting device.
  - The process of safely attaching a load to a hook by means of adequately rated and properly applied slings and related hardware.

GENERAL RIGGING SAFETY REQUIREMENTS

- The following requirements apply:
  - Only rigging equipment that is in good condition may be used.
  - Rigging equipment shall be inspected to ensure it is safe.
    - Rigging equipment for material handling shall be inspected prior to use on each shift and as necessary during its use to ensure that it is safe.
  - Defective equipment shall not be used and removed from service immediately.
  - Rigging equipment shall not be loaded beyond its recommended safe working load.
  - Identification markings, indicating rated capacity for the type(s) of hitch(es)
  - used, the angle upon which it is based, and the number of legs if more than one, shall be permanently affixed to the rigging.
  - All employees shall be kept clear of loads about to be lifted and of suspended loads.
  - All rigging equipment shall be stored and maintained in accordance with the
  - manufacturer's recommendations.
  - Rigging equipment not in use shall be removed from the immediate work area so as not to present a hazard to employees.
  - Slings (e.g., wire rope, synthetic web or rope, and chain) and rigging hooks shall:
    - Be inspected at least annually by a qualified inspector
    - Have a documented inspection history, with records readily available
    - Be labeled for identification purposes with a durable tag (synthetic or
    - metal) permanently affixed to the device.
  - Equipment that is not properly labeled shall not be used. However, manufacturer-supplied serial numbers or other individualized markings meet the labeling requirement.
  - The Responsible Individual for the equipment shall ensure that a designated person (Competent Person) determines whether conditions found during inspection constitutes a hazard and whether a more detailed inspection is required.
  - Defective equipment shall be removed from service and destroyed to prevent inadvertent reuse.
  - All rigging equipment shall be maintained, inspected, tested (or calibrated), inventoried, and stored.
  - The Competent Person shall ensure that equipment purchased through commercial channels meets or exceeds the requirements.

- Examples of conditions that may require rigging hardware to be removed from service are:
  - Synthetic slings with
  - Abnormal wear
  - Torn stitching
  - Visible red threads from the interior of the sling fabric
  - Broken or cut fibers
  - Discoloration or deterioration
  - Evidence of heat damage
- Wire-rope slings with:
  - Kinking, crushing, bird-caging, or other distortions
  - Evidence of heat damage
  - Cracks, deformation, or worn end attachments
  - Broken wires in excess of regulatory requirements
- Hooks
  - Opened more than 15% at the throat
  - Hooks twisted sideways more than 10° from the plane of the unbent hook
  - Shackles, eye bolts, turnbuckles, or other components that are damaged or deformed.
- Hooks on overhaul ball assemblies, lower load blocks, or other attachment assemblies shall be of a type that can be closed and locked, eliminating the hook throat opening.
- Alternatively, an alloy anchor type shackle with a bolt, nut and retaining pin may be used.
- xvii. The manufacturer's requirements shall also be consulted, and the most conservative requirements shall prevail.

RIGGING A LOAD

- Do the following when rigging a load:
  - Determine the weight of the load - Do not guess
  - Determine the proper size for slings and components
  - Make sure that shackle pins and shouldered eye bolts are installed in accordance with the manufacturer's recommendations
  - Make sure that ordinary (i.e., shoulderless) eye bolts are threaded in at least 1.5 times the bolt diameter
  - Use safety hoist rings (i.e., swivel eyes) as a preferred substitute for eye bolts whenever possible
  - Ensure that all hooks are equipped with a latch to eliminate the throat opening.
  - Pad sharp edges to protect slings.
    - Machinery foundations or angle-iron edges may not feel sharp to the touch but could cut into rigging when under several tons of load.
    - Wood, tire rubber, or other pliable materials may be suitable for padding.
  - Do not use slings, eye bolts, shackles, or hooks that have been cut, welded, or brazed
  - Determine the center of gravity, and balance the load before moving it.
  - Keep the attachment points of rigging accessories as far above and as far away from the center of gravity as possible
  - Initially lift the load only a few inches to test the rigging and balance
  - Tag lines shall be used unless their use creates an unsafe condition
  - Protect rigging hardware as required. Items left in the sun may have surface temperatures that exceed the safe limits of synthetic lifting devices

- **CRANE SAFETY**
  - Cranes must not be assembled or used unless ground conditions are firm, drained, and graded to a sufficient extent so that, in conjunction (when necessary) with the use of supporting materials, the equipment manufacturer's specifications for adequate support and degree of level of the equipment are met.
  - The crane manufacturer's procedures and prohibitions must be compiled with when assembling and disassembling equipment.
    - The assembly/disassembly of equipment must be directed by a competent and qualified person.
  - The work zone shall be identified by demarcating boundaries such as flags and range limiting devices, or defining the work zone as 360 degrees around the equipment up to the maximum working radius.
  - The hazard assessment must determine if any part of the equipment could get closer than 20 feet to a power line.

WELDING / HOT WORK

PURPOSE

The purpose of this welding and hot work program is to protect employees by establishing guidelines through which employees will receive the training and proper equipment needed to safely perform welding operations.

SCOPE

This procedure applies to all Westlund Concepts facilities and onsite construction and maintenance projects and has been written to comply with the OSHA standard 29 CFR 1926.351.

RESPONSIBILITIES

It is the responsibility of each project manager, supervisor and employee to ensure implementation of Westlund Concept's safety policy and procedure on welding. It is also the responsibility of each employee to immediately report any unsafe act or condition to his or her supervisor.

APPLICABILITY

The welding process joins metal parts. Welding processes require heat and sometimes other substances to produce the weld. Byproducts resulting from the welding process include fumes and gases which can be serious health hazards to employees. Additionally, safety hazards can exist such as the potential for fire or explosion and injuries from arc radiation, electrical shock, or materials handling.

This safety policy and procedure provides guidelines for safely performing welding operations. It presents provisions for training, discussion on types of welding, safe work practices, and employee protection requirements. It also presents critical details on hot work permits, work in confined spaces, ventilation requirements when performing welding operations, and inspection requirements.

This program details the areas of responsibility for project managers, supervisors, employees, at Westlund Concepts.

This safety policy and procedure affects all employees who are exposed by their job duties to welding and torch cutting operations. These welding and torch cutting operations occur at but are not limited to equipment fabrication, construction operations such as demolition and fabrication.

POLICY

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

DEFINITIONS
This section provides applicable definitions, establishes general provisions, and identifies responsibilities required by Westlund Concept's safety policy and procedure on Welding.

Confined Space - A space that is not designed for human occupancy, has limited openings for entry and exit, may lack adequate ventilation, and may contain or produce dangerous air contamination.
Hazardous - Any act, condition, or substance which poses health and safety risks to employees.
Hot Work Permit - A permit allowing employees to perform work involving welding, cutting, or any task that would deplete oxygen, create toxic fumes and vapors, or create the potential for fire or explosion.
Pulmonary - Any body function related to the lungs.
Welder/Welding Operator - Any operator of electric or gas welding and cutting equipment.

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

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

TRAINING
Employees who perform welding operations will be trained to:

- Recognize the hazards associated with various welding operations Know the safe work practices for welding operations.
- Understand the importance and requirements of Hot Work Permits Use the appropriate personal protective equipment (PPE) for the job.
- Recognize confined spaces and the requirements associated with them Understand the importance of regular inspections of welding equipment, attachments, and accessories.

This training shall be made available upon initial employment or job reassignment. Refresher training shall be provided upon the discretion of the supervisor.

TYPES OF WELDING
Several types of welding operations are used at Westlund Concepts. The most common welding operations at Westlund Concepts include: Gas welding, Arc welding and Resistance welding. The gas welding process unites metals by heating. The gases commonly used as the fuel gas are oxygen and acetylene. The gas cutting process removes metal by a chemical reaction of the base metal with oxygen at an elevated temperature.

The arc welding and cutting processes uses electric current and two welding leads. One welding lead is connected to the electric power supply while the other lead is attached to the work surface.
Resistance welding is a metal-joining process where welding heat is generated at the joint by the resistance to the flow of electric current.

WELDING HAZARDS

The hazards associated with welding include health and safety hazards. Health hazards are primarily respiratory hazards due to the generation of fumes and gases. Safety hazards are generally physical hazards due to the work site and conditions and materials associated with the work site.

Health hazards associated with the generation of fumes and gases depend upon the welding process, he base material, the filler material, and the shielding gas if any. Health hazards include exposure to:

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

Air sampling may be required to identify the fumes and gases emitted from a specific operation. Safety Hazards associated with welding operations include:

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

SAFE WORK PRACTICES

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

HOT WORK PERMITS

Hot Work Permits are a useful accountability tool to ensure that all the necessary precautions are taken prior to commencing welding. They also assure that employees are aware of and use the appropriate safeguards when performing welding operations. In confined spaces a hot work permit is required if any welding operations are performed in that space regardless of whether or not a confined space entry permit is required.

EMPLOYEE PROTECTION

Employee protection during welding operations must include:

- Safeguards and provisions for fall protection
- Tripping hazard prevention

- Eye protection
- Protection from arc welding rays
- Protective clothing
- Protection from electrical shock hazards

Additionally, to prevent injury from burns, all areas that have been just welded or cut will be marked to inform other employees that the material or area is hot.

- For fall protection, employees will be provided either with fall protection such as safety belts, life lines, or railings where falls from heights of 6 feet or more are possible.
- Tripping hazards will be minimized by welding lines being placed in order not to create trip and fall hazards. Cables will not block passageways, stairways, or other exits.
- Eye protection will be provided by helmets or hand held shields being used during all arc welding or arc cutting operations, excluding submerged arc welding. Helpers or attendants will be provided with proper eye protection.
- Arc welding rays protection will be provided by non-combustible or flame resistant screens, shields or suitable eye protection to workers or other persons adjacent to the welding operations. Booths and screens shall permit circulation of air at floor level.
- Protective clothing will vary with the size, nature, and location of the work.
- Electrical protective devices will be used to protect employees from the possibility of electrical shock when welding operations are performed in wet areas or areas where high humidity is present.

WORK IN CONFINED SPACES

No work is to commence until all requirements of the Confined Space Entry Safety Policy and Procedure are met and a Hot Work Permit is submitted. Refer to the Westlund Concepts Confined Space Program for additional details.

Mechanical ventilation will be provided during any confined space welding operation to prevent the accumulation of toxic materials or possible oxygen enrichment or deficiency. All heavy and portable equipment used in confined space welding or torch cutting operations will be secured before operations begin.

When a welder must enter a confined space through a manhole or other small opening, the welder will be attached to a manned lifeline. The lifeline will be attached to not interfere with the welding operation or with the removal of the welder in case of an emergency. A preplanned emergency rescue procedure will be in place prior to the welding operations.

When arc welding operations are completed or temporarily stopped, all electrodes will be removed from the holders. The holders are to be carefully positioned and stored so that accidental contact cannot occur. Additionally, all machines will be disconnected from their power source.

INSPECTIONS

All welding equipment including attachments and accessories will be inspected on a monthly basis by the supervisor or his or her designee. A written record including the date, type of equipment, equipment number, and equipment serial number, along with the signature of the employee performing the inspection will be maintained for a period of one year for review by regulatory agencies.

SPECIFIC RESPONSIBILITIES

Project Managers

Project Managers are responsible for ensuring that adequate funding is available and budgeted to provide proper equipment, supplies, PPE, and training for welders. They will also be responsible for identifying the employees affected by this safety policy and procedure. Project Managers will obtain and coordinate the required training for the affected employees. Project Managers will also ensure compliance with this safety policy and procedure through their auditing process.

Foreman and Supervisors
Foreman / Supervisors will be responsible for ensuring the safe handling of welding and torch cutting equipment and ensuring safety, fire prevention and protection during welding and torch cutting processes. Supervisors are also responsible for ensuring all welding equipment, including cables, lines and any accessories, are in good working condition. If any indication of damaged equipment is present such as broken or cut insulation on cables, etc., the supervisor will have that equipment removed from service and have it repaired.

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

Safety Manager
The Safety Manager will provide prompt assistance to project managers, supervisors or others as applicable on any matter concerning this safety policy and procedure. The Safety Manager will assist in developing and or securing the required training. Additionally, the Safety Manager will provide consultative and audit assistance to ensure effective implementation of this safety policy and procedure.

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

Employees trained as fire watchers will be available in areas where welding is taking place. Appropriate fire extinguishers will be immediately available and accessible at the welding operation.

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

A Hot Work Permit must be completed and followed where torch cutting and welding operations are conducted in close proximity to flammables, combustibles, hazardous materials or processes, and in confined spaces. Hot work permits assure that employees are aware of and use appropriate safeguards when conducting welding operations in these environments.

VENTILATION GUIDELINES FOR WELDING OPERATIONS
Mechanical ventilation will be provided for welders and helpers when:

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

CRITERIA FOR PERSONAL PROTECTIVE EQUIPMENT

Eye Protection Selection
Arc Welding and Arc Cutting - Helmets and hand held shields shall be used by personnel viewing the arc during welding and cutting operations, excluding submerged arc welding. Safety spectacles or goggles shall be worn during arc welding and cutting operations to provide protection from injurious rays from adjacent work and from flying objects. The spectacles or goggles may have either clear or colored glass, depending upon the amount of exposure to adjacent welding or cutting operations. Shade No. 9 thru 14 are recommended for Safety Spectacles or goggles used for gas metal-arc and shielded metal-arc welding. Helpers shall be provided with proper eye protection in accordance with ANSI Standard Z87.1.

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

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

Specifications for Protectors

Material Properties - Helmet and hand-held shield bodies shall be made of material which is thermally and electrically insulating, non-combustible or self-extinguishing, and opaque to visible ultra-violet, and infrared radiation. Helmets, shields, and goggles shall be capable of withstanding disinfecting.

Area of Protection - Helmets and hand held shields shall be designed to protect the face, forehead, neck, and ears to the vertical lines back of the ears from weld spatter and from direct radiant energy from the arc.

Window for Filter and Cover Plates - Helmets and hand-held shields shall be provided with a window for filter plates and cover plates, and shall be designed for easy removal and replacement of plates.

Materials Effect on Skin - All protective parts shall be constructed of a material which will not readily irritate or discolor the skin.

Ventilation - Goggles shall be ventilated to deter fogging of the lenses. Ventilation of cup-type goggles shall be baffled to prevent passage of light rays into the interior of the eyecup.

Cover Lens or Plates - Cover lenses or plates shall be provided to protect the filter lens or filter plate in goggles, helmets, or hand-held shields from welding spatter, pitting, and scratching. Cover lenses and plates shall be clear, glass, or self-extinguishing plastic, and need not be impact resistant.

Filter Lenses or Plates - All filter lenses and plates shall be impact resistant. All filter lenses and plates shall be substantially free from bubbles, waves, and other flaws. Except when a lens is ground to provide proper optical correction for defective vision, the front and rear surfaces of lenses and plates shall be smooth and parallel.

Marking - Filter lenses and plates shall bear some permanent distinctive marking by which the manufacturer and shade number may be readily identified. In addition, all glass filter lenses and plates, when treated for impact resistance, shall be marked with the letter "H " to designate impact resistance.

Guide for Selection of Filters. A guide for the selection of appropriate shade numbers is given in the 1910.132, Personal Protective Equipment.

Maintenance - Helmets and goggles shall be well-maintained. Helmets and goggles should not be transferred from one employee to another without being disinfected.

Protective Clothing
Criteria for Selection - Appropriate protective clothing required for any welding and torch cutting operation will vary with the size, nature, and location of the work to be performed.

Gloves - All welders and oxygen cutters shall wear protective gloves.

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

Aprons - Aprons made of leather or other suitable flame-resistant materials should be used when additional protection against sparks and radiant energy is desired.

Treated Clothing - Clothing treated with non-durable flame-retardant materials shall be retreated after each wetting or cleaning.

- Woolen clothing is preferable to cotton because it is not so readily ignited and helps protect the welder from changes in temperature. Cotton clothing, if used, should be chemically treated to reduce its combustibility. All outer clothing such as jumpers or overalls should be reasonably free from oil or grease.
- Sparks may lodge in rolled-up sleeves or pockets of clothing or cuffs of overalls or trousers. It is recommended that sleeves and collars be kept buttoned and pockets be eliminated from the front of clothing. Trousers or overalls should not be turned up on the outside.
- For heavy work, fire-resistant leggings or other equivalent means should be used.
- A sheet metal screen in front of the worker's legs can provide further protection against sparks and molten metal in torch cutting operations.
- Cape sleeves or shoulder covers with bibs made of leather or other flame-resistant material should be worn during overhead welding or torch cutting operations. Skull caps made from flame-resistant material may be worn under helmets to prevent head burns.

For overhead welding and torch cutting, or welding and torch cutting in extremely confined spaces, ear protection is desirable. This may be accomplished by following the 1910.95, Hearing Conservation.