

Safety Policy & Procedures

SAFETY STATEMENT

It is the objective of All Phase Electrical Services Inc. to maintain a healthy and safe environment to our employees, our customers, and those in the surrounding communities where we operate.

It is our Managements responsibility and goal to provide a safe and healthy work environment.

The management ensures that employees of our company are provided with proper safety training to prevent injury to themselves, as well as others.

Phil Harrietha

Owner

All Phase Electrical Services Inc.

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INJURY PREVENTION

General Personal Protection:

For your personal protection on the job, do not wear:

- loose clothing or cuffs
- greasy or oily clothing, gloves or boots,
- torn or ragged clothing
- finger rings or neck chains

Shirts and long pants shall be worn at all times.

Head Protection:

Workers must obtain and wear, at all times on the job, a CSA certified Class B safety hat.

(Do not paint or drill holes in the safety hat; replace damaged cracked hats immediately).

Foot Protection:

1. At all times on the job, workers must wear CSA certified grade 1 footwear or CSA certified footwear with heavy-duty toes and sole protection.
2. Work boots should be fully laced and tied.
3. Replace badly worn or deteriorated work boots.

INJURY PREVENTION CONTINUED

Eye Protection:

Cover goggles are required for workers drilling overhead or into concrete, masonry and drywall, when using power and actuated tools, and when chipping, grinding or cutting.

The Company will provide each employee with a pair of safety glasses. The employee is responsible for having safety glasses with him/her and insuring that they are usable. The Company will replace safety glasses that have become worn due to use on Company work.

Hearing Protection:

1. It is recommended that each worker have hearing protection available for use at his or her work station since continuous exposure to excessive noise from certain construction activities can lead to hearing loss.

2. Hearing protection is available in three general types:

- earmuffs (when properly fitted and worn; these generally provide more protection than earplugs);
- disposable earplugs (made of pliable material, one size fits all but can be used once only);
- permanent plugs (must be fitted to provide a good seal but can be washed and reused).

Personal Protective Equipment:

In addition to mandatory hard hats and safety boots, other personal protective equipment such as eye protection, hearing protection and fall-arrest devices must be worn when required. There may also be a requirement for gloves, respirators or specially designed protective clothing under certain hazardous conditions.

PERSONAL INJURY REPORTING:

SHOULD YOU BE INVOLVED IN AN INCIDENT WHICH RESULTS IN A PERSONAL INJURY **WHILE YOU ARE ON THE JOB**, YOU ARE REQUIRED TO FOLLOW THESE DIRECTIONS:

- Contact the supervisor to report the incident, **NO MATTER HOW MINOR**. You are to call the office at any time to report the incident. There is an answering service to take your call should you need to call after hours.
- If you reach the answering service please leave a message indicating that you are reporting a work-related accident and give us the telephone number where you may be called within the next 48 hours.
- Note that **YOU** are responsible to contact the supervisor **YOURSELF** (if possible) of any work related injury. You are also required to notify the client of the jobsite that you are working at.
- **ALL** injuries are to be reported within 24 hours even if there is no lost time. You are to report any incident, which although not considered serious at the time, may be a cause for concern two or three days following the accident date. Late reports or injuries resulting out of a previously unreported accident will be contested.
- When reporting, be prepared to offer the following information:
 1. Your name and the name of the client to whom you are assigned
 2. Date, hour and where you were when the accident occurred.
 3. What happened to cause the accident?
 4. Explain part of the body injured and identify right or left side.
 5. Was medical attention required? By whom and where?
 6. Will you miss work as a result of the accident? For how long?
 7. Were there any witnesses? Was anyone else involved?
 8. Give a telephone number where you may be reached.

ACCIDENT PREVENTION

Ladders:

Ladders present a major hazard. Three main causes of accidents must be guarded against.

1. Climbing or descending improperly.
2. Failure to secure ladders at top and bottom.
3. Broken or unsafely placed ladders.

Ladders shall be set up one foot out for every three to four feet up.

When climbing up or down, workers should always face the ladder.

Ladders should be set up on a firm, level surface. Portable ladders are to have non-slip bases.

Ladders with weakened, broken, bent or missing steps; broken or bent side rails, broken, damaged or missing non-slip bases; or otherwise defective parts, shall not be used and should be tagged and removed from the site.

If a ladder is used for access from one work level to another, the side rails should extend a minimum of 90 cm (3 feet) above the landing.

Watch for overhead power lines before attempting to erect any ladder.

Aluminum ladders must not be used near overhead power lines.

Ladders

Ladders were involved in fatal falls in 2004

Ladders require a special approach to safety.

When you think about it, preventing falls from ladders is different from preventing falls through floor openings, for instance, or from roof edges.

Fall-arrest equipment such as harnesses and fall prevention equipment such as guardrails generally won't protect people climbing up and down ladders.

The most common fall hazards in residential and commercial construction involve ladders. Falls result when ladders are:

- ✘ not tied off at the top
- ✘ in poor condition
- ✘ used the wrong way

A few simple rules can prevent most falls from ladders.

- Make sure the ladder is set up on a firm level surface.

- Always face the ladder when you're climbing up or down.

- Maintain three-point contact when climbing up and down a ladder or working from it. Three-point contact means on hand and two feet or two hands and one foot on the ladder at all times. Your chances of falling will be reduced if you maintain three-point contact.

- Don't carry anything in your hands. Carry your tools in a belt or pouch. Use a rope to lift and lower equipment and material.

- Secure the ladder at top and bottom. Consider using ladder stabilizing attachments at the base and top.

- Never over-reach to get at something off to one side. Re-position the ladder instead.

- Where possible, use a scaffold or elevating work platform instead of a ladder.

- With extension ladders, make sure the ladder is:
 - ✓ Free of damage to rungs, side rails, and hardware
 - ✓ Set up so that the base is level and the bottom can't slip
 - ✓ Sloped between 1:3 and 1:4
 - ✓ Tall enough to extend at least 90 cm (3 feet) above the landing area at the top
 - ✓ Secured at the top if it will be a regular means of access

- With no step ladders, make sure the ladder is:
 - ✓ Free of damage (no cracks in rungs or side rails, no excessive play in hinges)
 - ✓ Set up with legs fully extended and spreader arms locked
 - ✓ Tall enough to let you work while keeping your waist below the top of the ladder

SAFETY TALKS / SAFETY FORMS

It is our intention at All Phase Electrical Services to have our work force knowledgeable in all aspects of safety practices. As our jobs change from day to day it is very important and now mandatory that the following procedure is followed;

The Journeyman in charge of the job is to (either before starting a job in the morning or starting a new procedure) to hold a safety talk. During this talk he is to explain to the crew the safety practices they are to follow.

At this time it is the responsibility of the crew to voice any concerns they have concerning safety.

Examples of this as follows;

Hard hats and safety glasses must be worn at all times

Safety harness must be worn while you are on man lift.

All power must be locked out and tagged only by personnel working on equipment etc.

Please fill in Safety Talk form neatly and return form/forms with your paper work for each site.

SCAFFOLDS:

Scaffolds are to be properly installed and equipped as per “The Occupational Health and Safety Act.”

Scaffolds must be erected with all braces, pins, screw jacks, base plate and other fittings installed as required by the Act and Manufacturer.

Scaffolds must be equipped with guardrails.

Scaffolds over 2.5 meters (8 feet) high must be planked across their full width.

Scaffolds must be tied into a building at vertical intervals not exceeding three times the least lateral dimensions including the dimension of any outrigger stabilizing devices.

Wooden scaffold planks must be of good quality, free of defects such as loose knots, splits or rot, rough sawn 2" x 10" planks must be installed in a manner that prevents them from sliding.

Wheels or casters on rolling scaffolds must be equipped with breaking devices and securely pinned to the scaffold frame.

Scaffolds must be equipped with a proper ladder for access.

GUARD RAILS:

Guard rails consisting of a top rail, mid-rail and toe board must be provided around work platforms on all scaffolds, floor openings, ramps and open areas where a worker can fall from one level to another.

When guard rails or opening covers are temporarily removed, workers in the area must be protected by a safety harness and lanyard tied off to the structure.

Barricades, guard rails and covers must be replaced in a proper manner immediately after work is completed.

TRENCHES AND EXCAVATIONS:

Where personnel are required to enter a trench or excavation; it must be properly sloped or shored and trench boxes used where required.

ACCESS TO WORK AREAS:

Ladders, scaffolds, swing stages, ramps and runways should be constructed, erected and secured in accordance with the regulations under the Act. When work areas are above or below ground, access to and egress from the work area must be provided and maintained in a safe condition.

HOUSEKEEPING, STORAGE, CLEAN-UP:

1. Materials and equipment should be stored, moved, piled and transported in a manner that will not endanger workers.
2. Waste material and debris **MUST NOT BE STORED** in areas of access and egress. Waste material to be lowered or carried from one level to another and deposited in proper containers.
3. Materials to be lifted by a crane or other lifting devices must not be stored under overhead power lines.
4. Insure that all tools, equipment, building supplies, hardware, etc. are securely locked or placed in a lockable storage area on a day-to-day basis.
5. Insure that all lockups have proper locking devices and entrance to these areas is controlled by the supervisor.

TOOL MAINTENANCE:

It is the employer's responsibility to supply and maintain shop tools and other power equipment in good repair. It is the worker's responsibility to use such tools properly and to report any defects to the supervisor to ensure repair is initiated and proper tagging (complete with job number and contact person) of defective tools is carried out.

Electrical tools and equipment must be properly grounded or double insulated.

Always be sure that guards are in place and working.

For gasoline and solvents use only CSA certified containers in good condition.

Block wheels when equipment is not in use.

Electrical cables, extension cords, air hoses must be kept in good condition. Electrical repairs should be done by a qualified electrician.

LIGHTING:

Stairs and work areas should be adequately lit at all times.

MATERIALS HANDLING/LIFTING:

1. Wherever practical heavy lifts should be done with mechanical lifting devices.
2. When manual handling is required, dollies, trucks and similar devices should be used where practical.
3. Workers should know their physical limitations and obtain help when a lifting task may be more than they can solely handle.
4. The Right Way to Lift: secure a good footing with the feet a comfortable distance apart, bend the knees – keep the back straight and lift with the leg muscles.
5. Use gloves when handling sharp, rough, heavy or hot materials.
6. Never carry a load so large that it obstructs vision.

LOCKOUT PROCEDURE

The procedure below is being instituted for your own personal safety. Locking-out is the only positive way of guarding against accidental start-up of equipment. REMEMBER.....

NEVER WORK ON EQUIPMENT WITHOUT FIRST LOCKING-OUT!!!!

1. After the machine has stopped, the main disconnect switch must be locked in the off position. Where possible the fuses in the disconnect should be removed and left inside the bottom of the disconnect.
2. After the disconnect switch has been locked, a check must be made by pushing the start button to ensure that the correct Master switch has been disconnected.
3. Except as required for interim testing, the machine must be locked-out for all times until the work is completed.
4. Where more than one person is working on a machine, the multiple lock-out device is to be used and each person is to apply his or her own lock.
5. Check to see if there are any other sources of energy that may be a hazard, if so or if you are not sure you must contact your supervisor.

NOTE: THE ABOVE ARE THE MANDATORY STEPS IN THE LOCK-OUT PROCEDURE

WORKING BESIDE UNPROTECTED OPENINGS AND EDGES:

A worker must wear a safety harness with the lanyard tied off to a fixed support whenever the worker is more than three meters (10 feet) above the next level or above operating machinery, hazardous substances or objects regardless of the possible fall height.

WORKING FORM SWING STAGES:

A worker shall wear a safety harness with the lanyard tied off to:

1. An independent lifeline if the swing stage has only two independent suspension lines, or
2. The swing stage if it has four independent suspension lines (two at each end.)

POWERED ELEVATING WORK PLATFORMS:

In addition to the specific manufacturer's requirements for operating powered elevating work platforms and buckets, all operators of such equipment should:

1. Be thoroughly familiar with all operating instructions and safe load limitations;
2. Use three-points contact in mounting and dismounting equipment;
3. Keep the equipment free of slippery substances at all times;
4. Ensure no obstructions or workers are in the direct path of the equipment's operation;
5. Keep all guardrails and gates secured during operation;
6. Maintain proper distance from live electrical conductors or equipment at all times;
7. Ensure safety belts or body harnesses are as required; and
8. Ensure the equipment rests on a firm level surface.

LIVE CIRCUITS

The following procedure is mandatory;

It is our intention at All Phase Electrical Services Inc. to not work on live circuits; however we acknowledge that in certain circumstances leave us with no choice. In these instances the Journeyman is **NOT TO WORK ALONE** and must call his Supervisor to let him know that he is going to have to work “live”.

Before the Journeyman starts any “live” procedure he must be wearing his rubber safety gloves, his face shield, and he must lay his high voltage rubber mat down, where he will be standing. Journeymen must evaluate if the task can be done safely. If not arrangements to have the power shutdown at a later date will be made.

The Journeymen must be aware of their immediate surroundings, for instance;

1. Is there any potential for me to come in contact with live circuits?
2. Is there potential for me to ground myself when I am working on live circuit? If so how do I minimize this risk?
3. Do I have the correct tools to do job safely?
4. Do I need to block a door from opening?
5. Do I need to rope off the area?

FIRE PROTECTION:

Precautions shall be taken at all times to prevent the outbreak of fire in the work place.

Fire extinguishers must be readily accessible, properly maintained, regularly inspected and promptly refilled after use.

In addition to being familiar with the operation and location of all fire fighting equipment, all employees should be aware of the various categories of fire extinguishing equipment.

Class “A” Extinguishers – are for fires in ordinary combustion material such as wood, paper textiles, where a quenching cooling effect is required.

Class “B” Extinguishers – for flammable liquid and gas fires such as oil, gasoline, paint and grease where oxygen exclusion or flame – interruption is essential.

Class “C” Extinguishers – for fires involving electrical wiring and equipment where the non-conductivity of the extinguishing agent is crucial.

HAZARDOUS MATERIAL IDENTIFICATION AND HANDLING:

DEFINITION: Hazardous material is material in a form which by its nature, may be flammable, explosive, irritating, corrosive, poisonous, or may react violently with other materials if used, handled or stored improperly.

Included are substances prohibited, restricted, designated or otherwise controlled by law.

All hazardous materials found in the work place will be identified in accordance with the work place hazardous material information system (WHMIS) requirements of the Occupational Health and Safety Act.

See next page for Hazard Symbols.

WHMIS HAZARD SYMBOLS



CLASS A:
Compressed gas



CLASS B:
Flammable and
combustible material



CLASS C:
Oxidizing material



CLASS D:



CLASS D:
2. Materials causing
other toxic effects



CLASS D:
3. Biohazardous
infectious material



CLASS E:
Corrosive material



CLASS F:

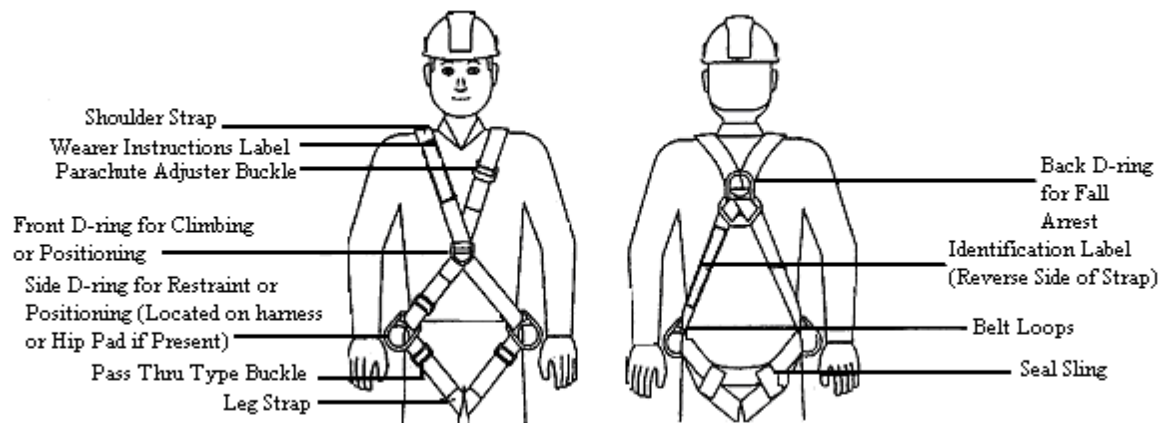
SAFETY HARNESSSES AND LANYARDS:

All safety harnesses and lanyards must be CSA Certified. Safety harnesses must be snug fitting and worn with all hardware and straps intact and properly fastened. Lanyards must be 16 millimeters (5-8") diameter nylon or equivalent.

The D-ring on the safety harness should be in the centre of the back. The lanyard should be secured to a rigid support or lifeline, preferable higher than waist level, and be kept as short as possible (no more than 1.5 meters – 5 feet) to reduce fall distance. When the lanyard is wire rope or nylon webbing, a shock absorber must be used.

ALL LIFELINES MUST BE:

1. 16 millimeters (5/8") diameter polypropylene or equivalent;
2. used by only one worker at a time;
3. Free from any danger or chafing;
4. Free of cuts, abrasions and other defects;
5. Long enough to reach the ground or knotted at the end to prevent the lanyard from running off the lifeline.



FALL PROTECTION:

Purpose: Full body harnesses are designed to be components in personal fall arrest, restraint, positioning, rescue or climbing systems (depending upon style of harness, see figure #1). These harnesses may be used in most situations where a combination of worker mobility and fall protection is needed. (Ex. Inspection work, general construction, maintenance work, oil productions, confined space work, etc.)

The following application limitations must be recognized and considered before using this product:

- **Corrosion:** Do not leave this equipment for long periods in environments where corrosion of metal parts could take place as a result of vapors rising into the atmosphere from organic materials. Caution should be exercised when working around sewage or fertilizer because of their high concentration of ammonia which is very corrosive. Use near sea water or other corrosive environments may require more frequent inspections or servicing to assure corrosion damage is not affecting the performance of the product.
- **Chemical Hazards:** Solutions containing acids, alkalies, or other caustic chemicals, especially at elevated temperatures may damage full body harnesses. When working with such chemicals, frequent inspection of the entire full body harnesses must be completed. Consult supervisor if doubt exists concerning the use of this equipment around chemical hazards.
- **Heat:** Full body harnesses are not designed for use in high temperature environments. Protection should be provided for the harness when used near welding, metal cutting or similar activities. Hot sparks may burn or damage the harness webbing.
- **Electrical Hazards:** Due to the possibility of electrical current flowing through the hardware or connecting, use extreme caution when working near high voltage power lines.

FALL PROTECTION CONTINUED

- **Capacity:** Full body harnesses are designed for use by persons with a combined weight (person, clothing, tools, etc.) of no more than 310 lbs.
- **Normal Operations:** The harness has been designed to disperse the impact forces throughout the body should a fall occur. Full body harnesses subjected to arresting a fall or impact forces must be immediately removed from service and destroyed. Full body harnesses showing excessive wear or deterioration must also be destroyed. You supervisor is to be notified immediately.

System Requirements:

- **Compatibility of Components and Subsystems:** Full body harnesses are designed for use with approved components. Use of this harness with non-approved components may jeopardize compatibility between equipment which could affect the reliability and safety of the complete system.
- **Compatibility of Connectors:** Connectors (i.e. hooks, D-Rings, carabiniers, etc.) must be capable of supporting 5000 lbs. (22KN) minimum. Caution must be taken to assure compatibility between connecting hooks and the connection point of the harness or anchorage. Non-compatible connectors may accidentally disengage (roll-out). Connectors must be compatible in size, shape and strength. The connecting subsystem (lanyard, self retracting lifeline, rope grab and lifeline, shock absorbing lanyard, etc.) must be classified as suitable for use in your application (i.e. fall arrest, restraint, positioning, rescue or climbing). For fall arrest applications, the maximum arresting forces must not exceed 1800lbs. **Refer to instructions supplied with connecting subsystem to determine suitability.**
- **Anchorage Strength:** Anchorages selected for personal fall arrest systems (PFAS) shall have a strength capable of sustaining static loads, applied in the directions permitted by the PFAS, of at least: (A) 3600 lbs. (16KN) when certification exists (Reference ANSI Z359.1-1992 for certification definition), or (B) 5000 lbs. (22.2KN) in the absence of certification. When more than one PFAS is attached to the anchorage, the anchorage strengths set force in (A) and (B) above shall be multiplied by the number of personal fall arrest systems attached to the anchorage.

FALL PROTECTION CONTINUED

Operation and Usage

WARNING: Consult your doctor if there is any reason to doubt your fitness to safely absorb the shock from a fall arrest. Age and fitness seriously affect a workers ability to withstand arrest forces. Pregnant women or minors must not use full body harnesses.

WARNING: Do not alter or attentionally misuse this equipment; your safety may depend on it. Consult when using this equipment in combination with components or subsystems other than those described in this manual. Some subsystem and component combinations may interfere with the proper operation of this equipment. Use caution when using this equipment around moving machinery and electrical hazards.

Before each use of this or any fall protection equipment carefully inspect it to assure that it is in serviceable condition. Check for worn or damaged parts; ensure all hardware (i.e. D-Rings, buckles, etc.) is present and secure and is not distorted, or has any sharp edges, burrs, cracks, or corrosions. Make sure that buckles work properly. Inspect webbing for ear, cuts, burns, frayed edges or other damage. Refer to section 5.0 for further inspection details. Do not use if inspection reveals an unsafe condition.

Plan your fall protection system before starting your work. Take into consideration factors that affect your safety before, during and after a fall. The following list gives some important points to consider when planning your system.

- **Anchorage:** Select an anchorage point that is rigid and capable of supporting required loads, see section 2.3. The anchorage location must be carefully selected to reduce possible free fall and swing fall hazards and to avoid striking an object during a fall.
- **Free Fall:** Do no work above your anchorage point; increased fall distance will result. PFAS must be rigged such that the potential free fall is never greater than 6 ft. Avoid working where your connecting subsystem may cross or tangle with that of another worker. Do not allow the connecting subsystem to pass under arms or between legs. Never clamp, knot or otherwise prevent the connecting subsystem from working properly. See figure #3.

FALL PROTECTION CONTINUED

Hoisting and Rigging:
























1. Never exceed safe working loads of slings and rigging hardware;
2. Determine load weight before rigging it;
3. Keep wire rope away from cutting and welding operations;
4. Destroy defective hardware, slings, chains and tackle.

NOTIFY YOUR SUPERVISOR FIRST;

5. Rig loads to prevent them from loosening or coming apart;
6. Use tiglons to guide heavy, long or awkward loads;
7. Stand clear when loads are being lifted or lowered;
8. Keep rigging, loads and hoisting equipment away from overhead power lines;
9. Communication between crane operators and workers should be clear and concise. Use a competent signal-person.

See next page for Hoisting Signals.

HAND SIGNALS FOR HOISTING REGULATIONS

<p>Load Up</p> 	<p>Load Down</p> 	<p>Load Up Slowly</p> 	<p>Load Down Slowly</p> 	<p>Boom Up</p> 	<p>Boom Down</p> 
<p>Boom Up Slowly</p> 	<p>Boom Down Slowly</p> 	<p>Boom Up Load Down</p> 	<p>Boom Down Load Up</p> 	<p>Everything Slowly</p> 	<p>Use Whip Line</p> 
<p>Use Main Line</p> 	<p>Travel Forward</p> 	<p>Turn Right</p> 	<p>Turn Left</p> 	<p>Shorten Hydraulic Boom</p> 	<p>Extend Hydraulic Boom</p> 
<p>Swing Load</p> 	<p>Stop</p> 	<p>Close Clam</p> 	<p>Open Clam</p> 	<p>Dog Everything</p> 	<p>No response should be made to unclear signals.</p>