

Ontario Service Safety Alliance presents

Electrical Safety

Electrical Hazard Safety Checklist



An easy checklist...

Below is an easy to use checklist. By selecting "yes," "no," or "not sure" you will be able to see at a glance legislative issues you may need to address for electrical hazards. State the action that is required and your target date of completion then determine if you have met your target or not. If you have any "no's" or "not sure's" and you need assistance in meeting your targets contact your OSSA consultant for assistance.

Checklist

EMERGENCY	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
If an electrical accident occurs, do employees know to disconnect the power supply before rendering treatment?					
When emergencies occur such as wet areas around electrical panels, do maintenance workers use wood platforms, insulated tools and wear rubber boots?					
Clean up spills immediately unless the liquid has come in contact or may have potentially contacted electrical components-if so, have staff trained in management of electrical hazards clean the spill?					
Are employees trained in proper use of fire extinguishers in electrical fires and the hazards associated with electricity?					
Notes:					

EXTENSION CORDS	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Are extension cords inspected before each use-cracked or worn insulation, damaged plugs, etc. should be removed from service?					
Are extension cords subject to kinking or bending excessively which can damage the cord?					
Are damaged extension cords reported? (e.g. cut, frayed, exposed wires, loose connections)					
Do cords have staples or nails in them, or are wires hanging or are they a trip hazard?					
Are cords run over by electrical equipment resulting in excessive wear and tear? If so, are they protected by a suitable conduit or planks alongside?					
Do cords have a special rubber or plastic covering if it may come in contact with chemicals that can break down the covering?					
Notes:					

EXTENSION CORDS	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Are cords coiled when in use which could result in the cord overheating?					
Are plugs disconnected at receptacle? (e.g. do not pull the cord)					
Are extension cords connected or disconnected with an electrical load on?					
Are cords stored properly- neatly coiled in a dry room at room temperature?					
Are power cords tied in tight knots which can short circuit and cause shocks?					
Are extension cords rated for indoor use used outdoors?					
Notes:					

EXTENSION CORDS	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Do cords have sufficient wire gauge for intended use?					
Are extension cords long enough to prevent the need to attach cords together?					
Are extension cords used as permanent wiring do to shortage of electrical outlets?					
Does the multiple outlet power strips have an internal circuit breaker that will trip if unit is overloaded to prevent overheating?					
Notes:					

FUSES	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Is proper lockout completed to ensure voltage is off before replacing fuses?					
Are fuses replaced with one of the proper size and type?					
Are fuses mistakenly inserted into live circuits?					
Notes:					

LOCKOUT	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Are proper lockout, tag-out and testing completed to ensure the voltage is off before performing maintenance on electrical equipment?					
Are multiple locking devices used when more than one person works on a piece of equipment so workers can all apply their own lock?					
If there is question about the safe operation of an electrical tool or equipment, is it removed from service, tagged and repaired by a qualified technician?					
Are there written lockout procedures provided for anyone performing lockout procedures including contractors?					
Is proper lockout and tag-out equipment available that has only one key per lock?					
Are authorized workers trained in proper lockout procedures when performing maintenance on electrical equipment?					
Do supervisors ensure proper lockout procedures are followed?					
Notes:					

PERSONAL PROTECTIVE EQUIPMENT	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Does the worker determine the degree of hazard and determine which part of the body would be affected when selecting the appropriate PPE?					
Do workers wear appropriate personal protective equipment such as rubber gloves, eye protection, footwear, head protection, etc.?					
Are applicable voltage rated, insulated rubber gloves worn when working on, around or near any live electrical apparatus for the purposes of troubleshooting, repairs or replacements?					
Are rubber gloves checked before each use for punctures and tears that will weaken their effectiveness?					
Does footwear for those exposed to possible electrical hazards have shock resistant soles?					
Do workers wear appropriate eye protection whenever there is a danger from electrical arcs, flashes or explosions?					
Do workers wear non-conductive head protection whenever there is a danger of head injury due to head injury from electrical shocks or burns?					
Are damaged pieces of PPE discarded and replaced?					
Notes:					

GROUND FAULT CIRCUIT INTERRUPTERS	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Are Ground Fault Circuit Interrupters (GFCI) used when workers are using any electrical equipment in work environments that are or could become wet? (e.g. outdoors)					
Are GFCI's used as close as possible to the electrical equipment it protects?					
Are defective GFCI's replaced immediately?					
Notes:					

ELECTRIC MOTORS	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Are electric motors free from areas where there is dust, moisture or flammable vapours?					
Is dust removed from motors before it has a chance to unite with water or oil and form a gummy mess?					
Are motors getting wet during cleanup operations which can result in failure or shock?					
Is equipment relocated from wet environments or have you purchased an enclosed splash proof design?					
If a motor is subject to moisture, have you dried the motor and tested it before putting it back in service?					
Is loose clothing worn when inspecting electrical equipment which could become entangled in moving parts?					
Also, are wristwatches, rings, necklaces, metal pens and metal flashlights removed?					
Notes:					

MAINTENANCE	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Does only knowledgeable staff install or repair electrical equipment? (e.g. properly licensed)					
Are there equipment that has the grounding pin removed which results in destroying the grounding path?					
Do thorough inspections take place-look for grounding pin on all attached plugs?					
Do workers always assume a circuit is live until it is proved dead?					
Do employees report any electrical defects or problems immediately? (e.g. short circuits)					
Are wall plugs plates covered and fitted properly?					
Is preventative maintenance completed on electrical equipment? (e.g. moisture, dirt, loose connections, short circuit and poor insulation could result in buildup of heat and fire)					
Notes:					

MAINTENANCE	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Are appliances unplugged before working on them and a lockout device attached?					
Is power tools unplugged before changing blades?					
Is all power tools properly grounded using a three prong plug and double insulated - labeled as such?					
Is water collecting on floor that needs addressing that could come in contact with electrical equipment or extension cords?					
Is frequent tripping of circuit breakers or frequent blowing of fuses reported and fixed by a qualified technician?					
Are unusual electrical problems reported and corrected? (e.g. shocks, flickering lights, buzzing sounds, smell of burning, arcs, dim lights, sparks, sizzling sound, presence of soot, warm electrical equipment and receptacle plates, etc.)					
Are tools used to repair electrical installations insulated- screwdrivers, pliers, wrenches, etc?					
Notes:					

GENERAL	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Are there barriers installed (e.g. floor curbing, steel barriers) if there is a danger of industrial trucks striking critical electrical equipment?					
Do electrical cabinets have close fitting doors that are kept locked?					
Are switches, circuit breakers and fuses plainly marked and arranged for quick identification of equipment supplied through them?					
Is there a continual overload on electrical equipment that may cause short circuits, mechanical failure or fire?					
Do workers handle electrical equipment with wet hands, high humidity or outdoors during or after a rainstorm?					
Do workers use a towel to dry sweaty hands when performing electrical work?					
Are aluminum ladders used where there is risk of shock around electrical installations?					
Notes:					

GENERAL	YES	NO	ACTION REQUIRED	DATE TO COMPLETE	COMPLETE? YES/NO
Are metal tools restricted around electrical hazards? (e.g. measuring tapes, metal ladders, etc)					
Is high voltage electrical equipment secured against unauthorized entry and has warning signs?					
Is there a buddy system when performing electrical work?					
Is access to circuit breakers or fuse boxes blocked?					
Are light bulbs used with a wattage rating higher than recommended by manufacturer?					
Are several power cords plugged into a single outlet without using a proper surge protected power strip?					
Notes:					

Referenced; from the Canadian Centre for Occupational Health and Safety, www.ccohs.com, October 16, 2008 and from Chapter 10 of Accident Prevention Manual for Business and Industry, Engineering and Technology 11th Edition, National Safety Council and Safety Auditing Made Easy- A Checklist to Program Management, Government Institutes Rockville, Maryland.