Electrical Safety Policy

Effective: September 2000
Reviewed: June 2023
Revised: March 2020
Signed/Position: Vice-President, Finance and Operations

Applicable Legislation/Standards:

Occupational Health and Safety Act of Ontario, R.S.O. 1990
O.Reg. 851 R.R.O.1990 (as amended), Industrial Establishments
O.Reg. 213/91 (as amended), Construction Projects
Electricity Act, S. O. 1998
O. Reg. 164/99 (as amended) Electrical Safety Code
O. Reg. 89/99 (as amended) Electrical Safety Authority
O. Reg. 570/05 (as amended) Licensing of Electrical Contractors and Master Electricians
CSA Z462 Workplace Electrical Safety
CSA Z460 Control of Hazardous Energy

Applicability:

This Policy applies to all University employees (faculty, staff), students, volunteers and contractors conducting work or research at the University of Guelph.

Policy Statements:

1. The design, construction, installation, and inspection of electrical equipment shall meet the requirements of the Electricity Act and its Regulations.
2. The operation and maintenance of electrical equipment shall meet the standards of the Electricity Act and its Regulations.
3. Plans and specifications for new electrical facilities and major alterations shall be submitted to the appropriate building owners and municipal or provincial agencies for review and approval.
4. No University employee shall install, extend, modify, adjust, test, or repair electrical equipment unless the employee is a qualified 309A Construction and Maintenance Electrician or 442A Industrial Electrician or an apprentice working under the supervision of a qualified electrician within the scope of practice for the Certificate of Qualification.
5. Electrical equipment that is capable of becoming energized shall be isolated, locked out, tagged, and tested before work, other than testing and troubleshooting, is performed on the equipment.
6. When equipment cannot be locked out due to infeasibility or increased risk, a written Energized Work Permit must be completed and signed off by everyone involved including workers, managers and directors.
7. When testing and troubleshooting is done in an energized state, the workers must review and follow approved Safe Operating Procedures.
8. Supervisors shall take measures to adequately protect employees from shock and burn when work must be performed near live electrical equipment.
9. The locations of power lines and cables shall be determined before digging or drilling work is commenced.
10. Energized parts of electrical equipment shall be guarded, covered, shielded, fenced, enclosed, or otherwise protected by means of suitable covers or casings, barriers, rails or screens, or mats or platforms to remove the liability of dangerous contact or approach by persons or objects.
11. Electrical disconnect switches and circuit breakers shall be labelled with current and voltage ratings.
12. Access to electrical equipment that requires adjustments, alterations, repair or maintenance shall be

maintained with secure footing at least 1m in front of the electrical equipment. Such equipment includes but is not limited to panel boards, fusible disconnects, motor control centres and distribution boards.

13. Electrical equipment and appliances shall be approved by an agency recognized by the Standards Council of Canada. A full list of accepted approval marks can be found at Search for an Approval Mark - ESA (esasafe.com) [1].
14. Class A ground fault circuit interrupters (GFCIs) shall be installed on temporary 15A and 20A branch circuits for 5-15R and 5-20R receptacles at renovation and construction sites.
15. Electrical tools and equipment used in damp or outdoor environments shall be protected by Class A ground fault circuit interrupters (GFCIs) installed at the receptacle or panel.
16. Working alone is prohibited on energized lines or equipment that exceed 300 volts.
17. Employees who work regularly around energized electrical equipment or distribution services shall be qualified in cardio-pulmonary resuscitation (CPR) and methods of release from electrical contact.

Related Guidelines:

- Extension Cords [2]
- Power Strips (Power Bars) [3]

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Links
[1] https://esasafe.com/electrical-products/recognized-certification-marks/ [2] https://www.uoguelph.ca/hr/extension-cords [3] https://www.uoguelph.ca/hr/power-strips-power-bars [4] https://www.uoguelph.ca/hr/page-category/policy