

# Camping With Electrical Safety



## Getting ready for the upcoming camping season? If so, keep these common electrical code violations in mind:

### #1 Issue: Flexible cords used as permanent wiring- Rule 4-010(3)(a)

Extension cords, lamp cords and other types of flexible cord are not to be used as a substitute for permanent wiring. These cords are not to be stapled or fastened to any structures, or run through holes in walls, doors or windows. Permanent wiring shall be installed where power is required for a duration of time to supply electrical equipment (i.e. power to a shed, outdoor accent lighting that will be up all summer, a/c units, ponds etc.).

**Safety reason:** These cords are designed and tested to be used for temporary power only. The insulation on these cords is not durable enough to be fastened to structures like permanent wiring. Long term exposure to the weather and mechanical abuse to cords causes deterioration of the insulation that could expose persons to electrical shock as well as fire hazards. Permanent wiring installations must meet Section 12 of the Ontario Electrical Safety Code.

### #2 Issue: Equipment or wiring that is damaged or that is not approved for outdoor use- Rule 2-300

Where cords feeding trailers or any wire/cable/conduit are damaged or deteriorated, the public is exposed to shock or fire hazards created by this condition.

**Safety reason:** Deteriorated or damaged cords or cables can energize metallic systems or pose shock hazards to persons. The shorting out of a damaged electrical cable could ignite flammable material. All electrical equipment installed outdoors must be rated for the environmental conditions to which it is exposed. Electrical equipment designed for indoor use will not operate safely when installed outdoors.



*The Electrical Safety Authority (ESA) operates as a delegated administrative authority, on behalf of the provincial government, responsible for public electrical safety in Ontario as designated by Ontario Regulation 89/99.*

### #3 Issue: Burying flexible cord and building cable (NMD)- Rule 4-010, Table 19

Flexible cords or NMD cable (standard house wire) cannot be buried directly in the earth. NMWU (underground rated wire) or other approved wiring method (i.e. PVC conduit with wet location conductors, or armored teck cable) is required.

**Safety reason:** Flexible cords are not certified for direct burial and standard house wiring cable (NMD type) is not designed for wet locations. Improperly rated conductors will deteriorate, exposing persons to fire or shock hazards.

### #4 Issue: Depth of buried underground cables- Rule 12-012

Where electrical cables are not buried to the proper depth and are not installed to Code (i.e. caution tape required in trench, mechanical protection where required etc.).

**Safety reason:** Cables installed underground that do not meet proper depth or protection requirements can easily be damaged by digging with a shovel and pose severe shock or fire hazards to the public.

### #5 Issue: The rating of fuses or breakers shall not exceed the ampacity of the conductors- Rule 14-104

Overcurrent devices (fuses or breakers) shall not exceed the current ratings of the conductors, cables and equipment that they protect. #14 gauge electrical conductor is rated for 15amps. #12 gauge electrical conductor is rated for 20amps.

**Safety reason:** Where a fuse or breaker rating exceeds the current rating of the conductor or equipment, it poses a fire hazard. This could cause the conductor to overheat or the equipment to fail thus increasing the possibility of a fire.

**#6 Issue:** Any Person performing electrical work (a Licensed Electrical Contractor or other (Prescribed by Law)) in the Province of Ontario is required to file with the Inspection department, a completed application for Inspection of any work on an electrical system.

**Safety reason:** If wiring work is being performed without the appropriate Inspection, the wiring work could pose a serious life and or property hazard.

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