

HEALTH AND SAFETY ADVISORY

Working live

The following are the only circumstances when working on or near exposed energized parts of electrical equipment is permitted, according to Section 191 of the Construction Regulation (Ontario Regulation 213/91):

1. When diagnostic testing needs to be carried out;
2. When it is not reasonably possible to disconnect the equipment, installation, or conductor from the power supply before working on or near the exposed energized parts; or,
3. When the equipment, installation, or conductor is rated at 600 volts or less, and if disconnecting the power would create a greater hazard to a worker than proceeding without disconnecting it.

The Ontario Ministry of Labour does not consider the disruption of normal building operations or any increased expenses associated with providing temporary power to be an acceptable reason for saying “it is not reasonably possible” to de-energize the system (see point 2, above). Inconveniencing the client does not qualify as a situation where “it is not reasonably possible” to de-energize the system.

If your work is part of a major shutdown for maintenance, it is reasonably possible to disconnect the equipment. If your work is part of routine maintenance, it is reasonably possible to schedule a shutdown of the system you’ll be working on.

Whoever decides that “it is not reasonably possible” to de-energize the system must be able to provide the reasoning for the decision and a justification for why the work must be performed in an energized condition.

If the work involves diagnostic testing, once the testing is completed, you must de-energize and lock-out what you’re working on before doing the repair work. Working on energized electrical equipment is permitted only in the circumstances listed above. It’s a last resort.

See Section 191 of the Construction Regulation for additional requirements that may apply to working live.

The *Occupational Health and Safety Act* requires employers to take every precaution reasonable in the circumstances to protect the health and safety of workers. In those situations where working on or near energized equipment is permitted, the employer must protect workers by ensuring steps such as the following are taken:

- a) conducting an assessment to identify the hazards;
- b) determining and implementing measures and procedures to protect the worker from the hazards;
- c) ensuring that workers have adequate training to carry out those measures and procedures; and,
- d) ensuring that workers have the required personal protective equipment (PPE) and adequate training to use it.

Before you can choose appropriate PPE for working on energized electrical equipment, you need to assess the potential for both electric shock and arc flash. You can then identify the right arc-flash rated protective apparel for the job. Fused leads provide additional protection in case of accidental misuse of a multimeter or meter failure.

There are other requirements for work around or near electrical hazards. These can be found under the heading **Electrical Hazards**, beginning in Section 181 of the Construction Regulation.

This advisory was developed by the Construction Safety Association of Ontario in consultation with the Ontario Ministry of Labour.



Construction Safety Association of Ontario
1-800-781-2726 info@csao.org www.csao.org