

Contactors required to interrupt line to ground faults shall be rated for maximum fault current that is available. i.e. grounded vs. impedance grounded systems.

The ESA Electrical Safety Mining Services Group reminds workers to pay close attention to the available line to ground fault currents !

## CSS Newsletter

### ESA's Provincial Electrical Safety Focus

The Electrical Safety Authority was established to:

- Promote the safe use of electricity.
- Increase public awareness of the potential dangers of electricity, and the requirements for ensuring safe electrical installations, applications and use.
- Respond to fatalities, injuries and fire losses associated with electricity.

ESA is designated the Ontario authority responsible for electrical safety and designated to perform this function by Ontario Regulation 89/99.

The **ONTARIO ELECTRICAL SAFETY CODE**, Ontario Regulation 164/99, defines the requirements for safe electrical installations, products, and operation and requires that:

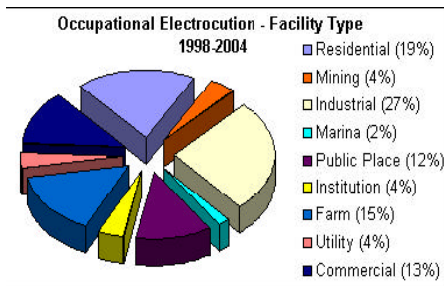
- Provincial safety standards be adhered to
- All electrical work be inspected
- Electrical system be properly de-energized prior to conducting electrical upgrade or maintenance work

### In the past 6 years incidents linked to working on live electrical systems have increased by 30%.

A review of occupational electrocutions indicates that 30% of all occupational electrocutions in 2004 were sustained by electrical maintenance or electrical trades people who were knowingly working on live electrical systems. In response to this trend ESA has launched a province-wide campaign encouraging electrical trades to not take the risk – to only work on de-energized electrical systems. ESA will be forwarding this campaign to all customers participating on our Continuous Safety Services Program in March.

### 2004 - Electrical Safety In Ontario, Overview of Occupational Fatalities

Occupational electrocutions increased as a percent of total electrocutions from 50% in 1998 to 90% in 2004. This increase parallels WSIB records that report a 23% increase in occupational fatalities since 1998. From 1998 to 2004, Ontario has seen 52 occupational electrocutions, an average of approximately 7 per year. Repair and maintenance work accounted for 63% of all occupational electrocutions during this time and have occurred in the following segments.



### New Electrical Safety Code in 2007

A new release of the Ontario Electrical Safety Code is scheduled for early in 2007. The new 2007 Code will require an integrated switch disconnect for new 347-volt fluorescent lighting fixtures.

### Ontario Electrical Contractor Licensing

On January 1, 2007 the requirements for electrical contractor licensing are changing with the introduction of Ontario Regulation 570/05. This regulation defines the requirements to obtain an Electrical Contractor and Master Electrician License to operate an electrical contracting business in Ontario. The introduction of a consistent provincial licensing requirement in Ontario will increase safety compliance, and provide a standard for enforcement. The Regulation impacts electrical work covered under the Ontario Electrical Safety Code with some exemptions. These exemptions apply to electrical work performed on equipment or electrical installations

within an industrial establishment, as defined under the Ministry of Labour's Occupational Health and Safety Act. Any external persons performing electrical work in your facility will be required to hold a valid Electrical Contractor License. For additional information on exemptions please refer to the Regulation.

Electrical Contractors will be licensed by the Electrical Contractor Registration Agency of the Electrical Safety Authority (ECRA of the ESA). Licensing application forms will be available on June 1, 2006. ECRA of the ESA will begin accepting licensing applications effective July 1, 2006 and full enforcement of these licensing requirements begins January 1, 2007. Further information regarding the regulation requirements is available at [www.esaecra.info](http://www.esaecra.info) or by phone: (905) 712-5385, fax: (905) 507-4572, e-mail: [esalicensing@electricalsafety.on.ca](mailto:esalicensing@electricalsafety.on.ca). To prepare for the new Regulation, ensure the Electrical Contractors you hire understand and have planned for the new provincial licensing requirements.

### FAQ

**Question:** Where Can Slash Rated Breakers (120/240, 480/277, 600/347) be installed?

**Answer:**

Slash rated breakers (120/240, 480/277, 600/347) are not acceptable for use on delta (ungrounded systems) or resistance grounded systems.

Slash, voltage rated breakers are permitted to be installed in **SOLIDLY GROUNDED CIRCUITS ONLY**, where the nominal voltage of any conductor to ground does not exceed the lower of the two values and the nominal voltage between any two conductors does not exceed the higher value. The mandatory tests required by the product standard are quite different for slash rated breakers: they are tested under line to ground faults rather than phase to phase faults. Therefore the breaker cannot safely clear fault currents on ungrounded systems.