ESA
Electrical Safety
Mining Services Group

Monthly Electrical Safety TIP

Electrical Safety At Work

Electrical workplace incidents associated with working on live electrical equipment have increased by 30% in the past six years (17 killed and 327 seriously injured)

The ESA Electrical Safety Mining Services Group warns workers not to work live on electrical equipment or systems!

ESA Electrical Safety
Mining Services Group NEWSLETTER
Together, we can maintain an electrically safe environment.

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INTRODUCING A CSS Newsletter

The Mining Services Group of the Electrical Safety Authority (ESA) is proud to introduce a Continuous Safety Services (CSS) newsletter to keep mining services participants up-to-date on important program and safety news. This newsletter will:

1. Enhance your safety knowledge
2. Advise customers of new ESA initiatives

What is CSS?

The CSS program is a contractual partnership between the Electrical Safety Authority and the Customer. The main goal is to increase the level of Electrical Safety Awareness through plan reviews, site inspections and code training.

FAQ

Question: What are the Top Observations (electrical hazards) noted during a site audit?

Answer:

1. **"Improper Ground-Fault Protection"**

M421-93 Clause 3.3.5 states **Where ground-fault protection is used, the supply shall be**

(a) grounded through a neutral-grounding device that limits ground-fault voltage to 100 V or less; and

(b) de-energized in less than 1 s if ground-fault current exceed.

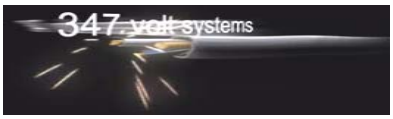
2. **"Unused cables are required to be tagged".**

M421-93 Rule 3.2.6.1 states **"Damaged or out-of-service wiring shall be disconnected from its source of power. Wiring left in place shall be identified and have bare conductors guarded."**

New Regulations Underway

Ontario Contractor Licensing (Applicable to construction sites on Mining property)

On November 30, 2004, amendments were introduced to the Electricity Act to enable the establishment of a province-wide contractor licensing system. The Electrical Safety Authority will be responsible for administering and enforcing this system of licensing for Electrical Contractors and Master Electricians. This system will be fully implemented by January 1, 2007.



Servicing 347 Volt Systems

Working live on 347-volt systems has become an area of concern. Connections associated with these systems require special care when servicing to keep electrical maintenance workers and contractors safe from electrical shock hazards. Before attempting any work on 347-volt systems make sure that the circuit is de-energized and verify that the circuit and its associated neutrals have been de-energized by using an approved tester – **don't take the risk associated with working on live electrical systems.**

OHSA 854 s.160 states that **"All switches controlling electrical equipment or line shall be locked and tagged in the open position while work is being done".** Where it is not practical to disconnect an electrical system, s.159 states that **"all necessary precautions to work safely shall be taken",** this would include protection by proper training and use of approved insulated or insulating devices such as **"tongs, rubber gloves, boots, mats, etc., which shall always be maintained in proper condition for use."** – OESC Section 2-306.

These safety rules are broadly known among the electrical trades with more than 80% of respondents to a recent survey rating working live on 347-volts systems as high-risk. In the same survey, 44% said they could work live without injury. Ontario statistics indicate associated incidents continue to occur, and have increased over the past three years.

Non-compliance with these regulatory requirements could lead to charges being laid under the Occupational Health and Safety legislation or the Criminal Code.