



Electrical Engineering Safety

Decision Sheet 5.2

Isolation Points for Electricity Supplies to Mines

A basis for consistent application of Electrical Engineering Safety issues across NSW

Decision Sheets are developed by the Inspectors of Electrical Engineering in response to issues raised or questions asked by others in the DPI, in particular Mine Safety Operations and from our external clients. They are for use by any staff in Mine Safety Operations, but primarily by Electrical Engineering staff. They can be distributed externally to the DPI.

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Preamble

Many mines (coal, metals and extractives) receive their electrical supply from Electricity Distributors. Many mines receive the supply at high voltage (110kv, 66kv,



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33kv, 11kv). This type of supply is often by OHL's. Where the mine takes control of the electricity supply and carries out mining and associated work is often well defined and any fault on the system or activity that causes a supply trip is completely in the control of the operator. However in some situations the OHL crosses the operation boundary and before the mine has complete control of the electricity supply there is a possibility that mining and associated activities can interact with the supply, eg a truck body contacting an OHL. The mine has no control of the electrical protection and isolation arrangements and it is possible for the electricity distributor to arrange supply circuit breakers to automatically reclose. The mine may not be able to make suitable arrangements with the electricity distributor on this matter.

Issue

The mine needs to ensure that electricity supplies to the mine, operated by the electricity distributor and that can be impacted on by mining or associated activities are arranged for suitable isolation and protection.

Position

These types of supplies should have a suitable isolation and protective device installed where the OHL crosses into the mine property. This device should be arranged to prevent automatic reclosure.

Equivalent arrangements may be able to be provided by the electricity distributor at points away from the mine property – suitable contractual arrangements will need to be in place.

