Electrical Engineering Safety
Decision Sheet 11.2
240 volt tools & appliances

A basis for consistent application of Electrical Engineering Safety issues at NSW mines

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
Mines utilise 240 volt appliances and tools using plugs & sockets in many parts of an operation. Typical locations are: Offices, workshops, laboratories, processing plants, bathhouses and underground.

Issue
Domestic appliances and double insulated 240 Volts power tools intended for domestic use are generally unsuitable for an industrial environment.

Position
Domestic appliances: Domestic appliances should only be used in offices and crib rooms.

Double insulated power 240 Volts power tools: The use of double insulated 240 volt hand tools should be avoided. Battery powered tools are encouraged as a safer alternative.

Before considering using such tools the manufacturers instructions for safe use and environmental constraints must be considered, in the vast majority of situations at a mining operation, the manufacturers instructions will effectively determine that the double insulated 240 Volts hand held power tool is not suitable for use.

Note: AS/NZS3000:2007, Section 7.4 makes provision for segregated circuits which in certain circumstances may be suitable for supplying power to 240 Volts hand held power tools in some industrial environments.

Contractors: Mines must implement a supervisory system to ensure that Contractors electrical equipment is used and tested only in accordance with the mines electrical safety standards. Employees should be discouraged from bringing electrical crib room appliances onto the site unless the appliance is inspected and meets the site electrical safety standards.