Electrical Engineering Safety
Decision Sheet 7.1
Evidence of compliance to Standards
Cables for use in hazardous zones

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

Legislation and gazette notices often require compliance with nominated standards or requires certain risk controls to be implemented. Certain standards such as AS/NZS3000 require qualified electrical people to assess and test electrical installations and complete a statement of compliance (this is an accepted practice across Australia). Other requirements include assessment by accredited organisations, certification by accredited organisations and the issuing of Certificates of Conformity (for Ex equipment), whereas other requirements are silent (cables to comply with AS1802 and AS1972)

Issue

What type of assessment and evidence is required to demonstrate compliance?

Position

Where there is no accepted practice or scheme that covers the requirement, then the principle of “The higher the risk, the higher the level of credibility of the assessment and compliance statement”.

For cables used in hazardous zones for non-intrinsically safe purposes, there is a requirement for compliance to AS1802 or AS1972. As this type of plant presents a high risk in relation to electrocution, fires and explosions, the assessment of cables and any associated compliance statement needs to be highly credible. The assessment should consist of type-tests conducted by a recognised organisation (NATA or ILAC accredited organisation or equivalent) and routine tests conducted by the manufacturer. The compliance statement must be made by the manufacturer and reference the type test report issued by the recognised organisation.

Note: Plant safety legislation requires that the manufacturer / supplier provide information to the end user with regard to test results.

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