

NSW Resources Regulator

FACT SHEET

Assessment program - Fire or explosion – electrical

Metalliferous mines and tier 1 quarries

June 2021

The Resources Regulator is commencing a program of planned inspections and targeted assessments at metalliferous mines (surface and underground) and tier 1 quarries, which will be focussing on the assessment of critical controls within electrical infrastructure which are intended to manage the risk of fire and explosion.

Fires and explosions have the potential to cause serious and/or fatal injuries to workers. This fact sheet identifies what are considered as the critical controls for electrical risks within the metalliferous and tier 1 quarry mining environments. The below information should be considered by mine operators when assessing the risk at their operation.



Electrical Protection

Electrical protection detects and disconnects overloaded or faulty electrical equipment



Lightning protective earthing

Lightning energy is controlled with an effective earthing system

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Fire or Explosion – Electrical Metalliferous mines and tier 1 quarries

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Equipment suitable for the environment

Management of diesel or electric powered plant with respect to the environment in which it is installed

Considerations

Investigations into fire or explosion incidents involving electrical installations have identified that the absence or degradation of these critical controls have contributed to incident outcomes. When identifying and implementing control measures, mines are also reminded to follow the hierarchy of controls to ensure health and safety risks are minimised so far as is reasonably practicable.

| DATE PUBLISHED | REFERENCE | TITLE |
|----------------|-----------|---|
| 25 May 2020 | SB20-03 | Electric shocks in the mining industry |
| 11 May 2017 | SB17-04 | <u>Uninterruptible power supply installations at</u> <u>mines</u> |
| 20 Apr 2015 | SA15-03 | Electrician injured after making contact with live high voltage conductor |

Other relevant safety alerts and bulletins published by the NSW Resources Regulator:

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