

Key Risk Areas for Electrical Engineering Safety

Ranking the key risk areas is based on the uncontrolled risk and the number of people exposed to the risk and the industry performance with regard to related incidents. It is also recognised that many of the key risk areas require non-EES risk control and EES risk controls to adequately manage the risk.

Electrical Key Risk Areas in risk ranking order

1. Electrocution, electric shock and electric burns, incorporating failure of distribution systems (reasonable consequence is 1 fatality per event, although multiple fatalities have occurred).
2. Asphyxiation/poisoning caused by insulation combustion (Fire caused by failure of electrical plant). (reasonable consequence is 10 or more fatalities in one event)
3. Explosion or fire caused by electrical plant in a gas or dust hazardous area, incorporating failure of ventilation systems (reasonable consequence is 10 or more fatalities in one event).
4. Failure of transport systems for people safety – Mine winders. (reasonable consequence is 10 or more fatalities in one event – much larger numbers could occur at some mines with shaft winders)
5. Failure of Machine Control electric's. (reasonable consequence is 1 fatality per event)
6. Radiation, harmful energy sources. (consequence is generally long term)
7. Carcinogenic substances & asbestos (consequence is generally long term)
8. Chemical sources (General OHS risk area)
9. Electrical Shot firing. (reasonable consequence is 1 fatality per event)
10. Mine emergency system infrastructure (Mining risk area)