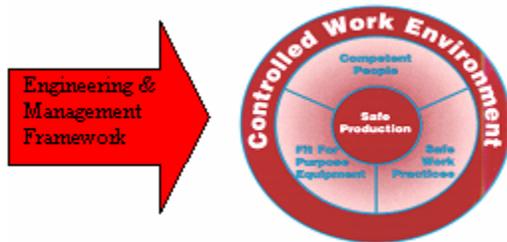


GENERAL INFORMATION – ELECTRICAL ENGINEERING SAFETY (EES)

Mining, Electrical and Mechanical Engineering decisions are critical to attaining safe production at mine sites. To achieve safety, these decisions must be of the highest quality. A model for making these quality decisions is the Minerals Industry Risk Management Model (MIRM Model). MIRM has two main elements; these are the management system and the work process factors. The management system incorporates the management and engineering framework for the design and operation of the site. As such, it supplies the inputs to the daily work processes to achieve safe production within a controlled work environment, by, competent people, fit for purpose equipment and safe work practices. This is expressed in the diagram below. (Refer: www.mishc.uq.edu.au).



The quality of the decision depends on the quality of the engineering and management process that designs, purchases, installs, commissions, operates, maintains (including repair and overhaul), modifies, trains, standardises and otherwise defines the nature of the day-to-day work process. To do this the management system has to be defined and formally documented so that the quality of key decisions is not left to chance. (Refer to Australian/New Zealand Standard AS/NZS 4801:2001 *Occupational health and safety management systems—specification with guidance for use*).

All of the above must be present and effective at every stage of the equipment and mine's life cycle, and must be effectively supported by the organisational culture. If any element is deficient, or, there is ineffective support from the organisational culture – safe production is left to chance.

The information in the electrical engineering safety section of this website is intended for use within the Engineering and Management Framework.

Electrical Engineering Safety relates to preventing electrical injuries (electric shock, burns and arc blast), preventing fires and explosions caused by electrical equipment, preventing injury or death from electrically powered or electrically controlled equipment, and providing electrical safeguards and monitoring for both electrical and non-electrical hazards.