

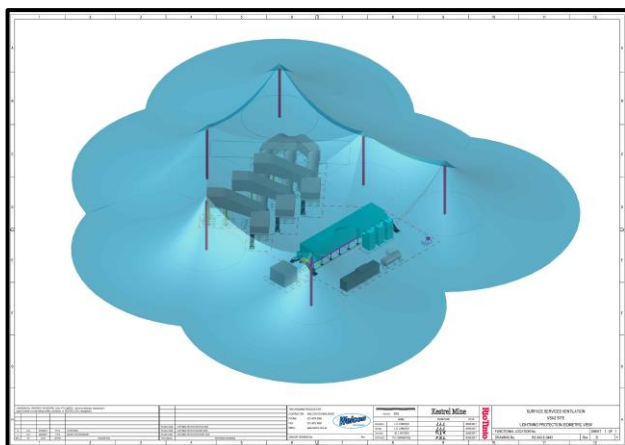
LIGHTNING AND SURGE PROTECTION SERVICES

LIGHTNING PROTECTION

Lightning strikes are responsible for more deaths and property loss than cyclones and floods combined. However, lightning is the **only** force of nature that we can economically protect ourselves against.

Lightning protection systems generally consist of earthing systems, air terminals and down conductors.

Welcon has enhanced our capabilities for designing and analysing Lightning Protection Systems by developing our own specialised 3D software. This provides our clients with a simple visual drawing that demonstrates the effectiveness of the protection system.



ELECTRICAL SURGE PROTECTION

Electrical surges or transients can be caused by lightning strikes or power utility spikes and can cause extensive damage to electronic equipment. They enter equipment through the electrical power supply system, as well as data and communication cabling. The effect of surges can be greatly mitigated by hard wired surge filters and diverters.

Surge protection equipment cannot neutralise the effects of a lightning strike on its own. An efficient lightning protection system and a surge protection system must be combined to provide the best possible results. And even then, no guarantees exist for complete protection against mother nature.



LPS DESIGN CAPABILITIES

Welcon Technologies can design lightning and surge protection systems to comply with Australian Standard AS/ANZ 1768:2007, utilising state of the art software including CDEGS, GroundMat and our specialised 3D Rolling Sphere Method software.

Typically, our review and design methodology will include the following:

- Detailed Lightning Risk Assessment.
- Review of any existing LPS already installed.
- Apply the Rolling Sphere Method to specify interception points and system protection.
- Select interception and protection system hardware elements.
- Utilise CDEGS or GroundMat software to simulate the earthing system requirements or arrangements.
- Design of suitable earthing system for the Lightning Protection System.
- Detail design and specification of recommended Lightning and Surge Protection Systems.



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