VESDA®

SUCCESS STORY

VESDA PROTECTS VICTORIA'S LARGEST ENERGY PRODUCER

THE CHALLENGE

The Loy Yang Power Station is situated in the heart of Victoria's Latrobe Valley, 165 kilometers east of Melbourne. It is a 2,000-megawatt brown coal-fired power station adjacent to the largest open-cut coalmine in the Southern Hemisphere.

THE SOLUTION

Within any large power facility, safety is a major concern. Risks abound in many areas, and fire is considered one of the higher risks. The company recognized the benefits of VESDA aspirating smoke detection and introduced several 'Xenon' systems as its primary means of fire detection in 1989. Loy Yang's VESDA numbers have since grown to approximately 114 detectors with the VESDA VLP range now dominating this site.

The communications network also has been expanded and includes a new VESDA VSM4 management system with computers at strategic locations throughout the facility, including the fire station, power control room and the gate house, where the maintenance manager is stationed.

THE OUTCOME

VESDA VLP detectors are installed in many important and critical operational areas within Loy Yang:

Raw Coal Bunkers	Monitoring the threat of fire in coal hoppers where spontaneous combustion and conveyor transportation presents a risk
Electrical Switch Gear, Relay Rooms and Annexes	Room and in-cabinet sampling to detect the earliest presence of fire, ensuring power continuity is maintained to all site operations
Battery Rooms	To minimize risk to back-up power facilities
Control Room Training Simulators	Critical site monitoring locations and where on-site training is conducted
Pump House	To detect potential fires in motors and ancillary equipment
High Bay Parts Storage	To overcome the dilution of smoke in large, open spaces

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WHY VESDA

- The ability to detect overheating cable insulation before charring occurs in heavily populated cable trays and racks is a key feature of aspirating smoke detection systems, ensuring the earliest intervention before a problem arises.

- Stable detection in an array of environments ranging from high-velocity air conditioning plenums to raw coal bunkers where dust, smoke dilution and other environmental factors impact traditional forms of fire detection equipment performance

- Unwanted alarms are kept to a minimum through VESDA's ability to learn the specific environment. This coupled with special filtering techniques and other built-in management controls ensures reliable performace as well as detector longevity.

- Minimum maintenance requirements despite the harsh conditions

- Engineered designed systems with 'absolute' detection capability to a corporate policy

Project:

Very early warning detection for a power plant

End User/Location:

Victoria, Australia

Industry:

Utilities

Solution:

VESDA VLP
VSM4

Benefits:

- Very early fire detection to mitigate risk or business interruption and catastrophic loss
- Reliable and continuous operation
- Central detector location and powerful networking capabilities for the industry's lowest cost of ownership