LESLIE ELECTRICAL SERVICES

CASE STUDIES

Hazardous Area Chemical Manufacturing

Industry: Chemical Polymers
Duration: 3.5 Weeks
Value: $100,000

The Situation

Our client, a major Australian chemical manufacturer, relies on automated stormwater containment gates to prevent spill discharge beyond the site boundary. The legacy control system, installed in the 1990s, had reached end-of-life and was no longer reliable, compliant, or capable of meeting modern environmental and WHS monitoring requirements.

While the control architecture required full modernisation, the existing pneumatic gate hardware had to remain operational, necessitating a complete control system redesign without modification to the physical gate mechanisms. As the stormwater protection system could not be offline for extended periods, the upgrade required carefully staged implementation, efficient changeover planning, and expedited commissioning to minimise operational risk.

What We Delivered

- Reverse-engineered legacy control logic and operational sequencing to ensure continuity of function
- Designed a fully modernised control architecture with updated documentation and compliance framework
- Engineered and constructed two new control panels with secure RF communication between remote assets
- Integrated 300Ah battery backup to maintain full operational capability during mains power failure
- Implemented SMS alarm notifications for spill events, gate position, and system status visibility
- Delivered commissioning, verification testing, and EPA approval support

The Result

A fully modernised, EPA-compliant stormwater protection system seamlessly integrated with the existing pneumatic infrastructure. The upgrade delivers real-time monitoring, uninterrupted operation during power outages, and significantly enhanced compliance and safety assurance. All achieved without civil works, cabling overhauls, or major infrastructure replacement.

EPA-Approved Modernisation

Power-Outage Reliability

Remote Visibility & Rapid Alerts

BOOK A SITE VISIT

1300 537 543
kyle.leslie@leslieelectricalservices.com
leslieelectricalservices.com.au