sgcaustralia

CASESTUDY

RTIO EII MCC REPLACEMENT PROJECT

PROJECT PROFILE

Decommissioning, replacement installation and commissioning of Seven (7) outdoor MCCs for Trippers - TR7EN, TR8EN, TR9EN, TR10EN, TR11EN, TR12EN and TR32EN, for thyssenkrupp Industrial Solutions as part of the Rio Tinto East Intercourse Island (EII) Stacker Replacement Project.

Works included functional safety upgrades, rectification and installation upgrades.

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PRODUCTS HANDLED

- Iron Ore

CAPACITY

- 45 mtph

HIGHLIGHTS

- ABB ACS880-11-07A6-5 VVVF drives
- EATON 1P 63A Surge Filter
- PNOZ S4 Safety Relay
- PNOZ S7 Safety Relay
- OMRON 6A 6P 24VDC
- Non-Latching Relay
- CISCO 8-Port Network Switch and Network Router
- SCHNEIDER 12-Slot PLC Rack with Power Supply and M580 CPU
- PLC and SCADA

OUR INVOLVEMENT

- Engineering, design and drafting, manufacture, and delivery of seven (7) single sided outdoor MCC units
- Certified to AS AS/NZS 3439 or AS/NZS 61439
- Certified IP66 external MCC enclosures
- Certified to Arc flash rating 40kA
- Certified to AS1170.1&1 Wind region D
- Installation and testing of equipment, including but not limited to:
  - PLC hardware, network switches, safety relays and voltage regulation/power conditioning of power supply units and variable speed drives
  - Modicon M580 PLCs and Extended I/O
  - ABB ACS880VVVF drives
  - TeSys T LTMR Motor Protection Relays and Custom Logic
  - Schneider NSX100N MCBs
  - Cisco Network switches and Modbus over TCP/IP Communications
  - PILZ PNOZ S4 and S7 Safety Relays
- Electrical MCC Factory Acceptance Testing with PLC & SCADA availability for I/O and functional testing
- Creation of detailed construction and commissioning work pack documentation
- Decommissioning of existing MCCs and associated infrastructure prior to the new equipment installation
- Removal and Replacement
  - Lifting and Rigging
  - Working at Heights (Scaffolding, EWP)
- Electrical construction including, but not limited to:
  - Cable containment and cable support systems
  - Supply and installation of engineered cable requirements
  - Terminations and commissioning
- Recommissioning of all motors, hydraulics and field instruments during the project delivery
- QAQC of installation with supply of associated As-built drawings