

SEWAGE TREATMENT PLANT UPGRADE

NRG were engaged as a local sub-contractor to upgrade the electrical, instrumentation and control supply, including installation and commissioning, as part of a wider plant upgrade.

PROJECT: Yeppoon Sewage Treatment Plant Upgrade

CLIENT: Livingstone Shire Council

HEAD CONTRACTOR: Downer

This project was completed in accordance with local government regulations and included the installation of:

- 28 x electrical motors ranging from 0.25kW to 75kW, both variable speed drive and direct on line
- 28 x Local Control Stations designed and constructed for the motors
- 16 x Instrument Junction Boxes constructed for over 130 instruments
- 305m of cable tray ranging from 150mm to 600mm
- 2 x PLC cabinets (30+ I/O Cards)
- 1 x 72 pole Distribution board
- 2 x standby diesel generators
- 28 x starter cells across 2 Motor Control Centres
- 2 x VESDA fire detection and suppression system
- 2 x Chemical dosing unloading panels
- Approximately 25km of control, instrumentation, communication and power cables

Delivery

On schedule
Value: \$930,000
Commencement date: January 2019
Completion date: August 2019
Safety incidents: 0
Environmental incidents: 0
Rework: 0



SCOPE OF WORKS

- Removal of old, installation and testing of new starter cells in the existing Motor Control Centres (MCC's), conducted during designated night shifts.
- Installation of two new standby diesel generators and connections to the existing MCC's, and earthing system via automated change over switch.
- Installation of free issue electrical equipment in the upgraded facility
- Modifications of existing equipment
- Supply and installation of new cable and systems
- Inspection and testing of all modified and installed electrical equipment prior to plant commissioning
- Instrument calibration
- Decommission and make safe of redundant plant and equipment

Equipment & Supplies

- Control cable
- Power cable
- Instrumentation cable
- Communication cable
- Local Control Stations
- Instrument Junction Boxes
- Cable tray
- Distribution Board
- VESDA systems
- All tools and test equipment

Labour

- 1 electrical supervisor
- 15 electricians
- 1 specialist instrumentation electrician
- 1 engineer

Training/Experience

- Current Queensland Electrical Licence
- CPR and LVR
- Construction Industry Induction
- Downer Induction
- EWP licence
- Working at heights
- Supervisor/leading hand experience
- Trained in safe systems of work

Key Stakeholders

- Principal contractor – Downer
- Mechanical contractor – BME
- Civil – JRT Civil
- Odour Control – Aquatec
- Steel Works – CQ Steel

References

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