

# HUNTER RIVER REMEDIATION PROJECT

## PROJECT OVERVIEW

BHP undertook to install a process plant for the treatment and remediation of the river system on the land adjacent to the dredging area where their former Newcastle Steelworks was situated.

The remediation process involves the careful dredging and cement stabilisation (treatment) of river sediments, the addition of cement to sediments immobilises the contaminants and also makes the material safe to transport.

## DESIGN AND ENGINEERING

Working with the various Equipment Manufacturers and Suppliers, **PAN PROCESS** designed the electrical process system, SCADA and the PLC hardware required to run and control the treatment process.

**PAN PROCESS** also took on the responsibility for the design of the switchboards, cabling requirements and selection of the instrumentation required for the plant.

An integral part of our process system was undertaking the programming and commissioning of the plant, this was a unique and complex part of the project as this type of mixing is the first of its kind in Asia Pacific region.

The key to success was to achieve the right mix of the moisture content in the mix of sediment and cement to get maximum throughput from the mixing process.

## MANUFACTURE, PROCUREMENT AND INSTALLATION

**PAN PROCESS** was responsible for the manufacture, supply and installation of the complete electrical and control system including:

- Switchrooms and Control Rooms
- Switchboards, Control Centres and Local Control Stations
- PLC equipment and interfacing equipment
- Extensive testing of the completed installation

Our Brisbane based project crew mobilised and carried out the electrical installation for the entire project including liaising with and providing technical assistance to the equipment suppliers, Mechanical Contractor and the Main Contractor as well as extensive testing and commissioning of the completed plant to ensure a fully integrated control system.

### Client

BHP

### Principal Contractor

Theiss

### Total Value

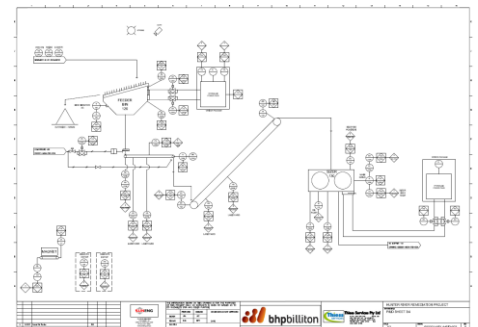
\$3.8 million

### Project Completion

November 2010

### Summary

Design, Engineer and Construct Project



### AUTOMATION AND CONTROL

PAN PROCESS undertook the following works associated with the Automation and Control Systems:

- PLC and SCADA programming for the complete plant
- Complete site communications network

### PROJECT MANAGEMENT SERVICES

PAN PROCESS provided Project Management services in the following areas:

- The preparation of the Project Schedule and responsible for the submission of project documentation including HSEQ Management plans, Risk Management Plans, Commissioning Plans and specific ITP's for work packages.
- On and off site construction activities associated with procurement, fabrication, inspection, testing, and delivery to site.
- Preparation and submission of procedures for pre-commissioning, load and no load commissioning and submission of commissioning reports.
- All electrical 'As Built' documentation and drawings for the complete works, including updated single line diagrams, schematics, equipment layouts, cable schedules, equipment list with full details, recommended spare parts list, for Contractor supplied equipment.
- Adherence to the Workplace Health & Safety Act and the National Code of Practice

