

CASE STUDY

KWINANA BULK TERMINAL 2 PORT UPGRADE

PROJECT PROFILE

The Kwinana Bulk Terminal was built in the 1950's with a throughput capacity of 400 TPH.

The land is owned, and the terminal has been operated by Fremantle Ports since 2002.

EPA approval was granted in 2002 to import and export approximately 5.6 million tonnes of bulk products.

The port upgrade project aimed to increase Bulk terminal capacity to 2,500 TPH.

PRODUCTS HANDLED

- Cement Clinker
- Coal
- Gypsum
- Nut Coke
- Granulated Slag
- Iron Ore

CAPACITY

- KBT's operational bulk berth has throughput capacity around 5-7 million tonnes per year
- Actual capacity depends on requirements of products, rail receival arrangements and import/ export mix
- 10 coal trains weekly (1-2 coal shipments per month)
- 9 iron ore trains weekly (6 shipments of iron ore per month)

PRODUCTS USED

- Rockwell ControlLogix and SLC500 PLCs
- CitectSCADA
- DeviceNet network on each PLC for motor control
- Ethernet network over fibre optic backbone
- Radio communications link to Stacker



SCOPE OF WORKS

- Reinstatement of rail to accept standard gauge rolling stock
- Upgrading of the train unloading system
- Installation of a refurbished stacker
- New train receival conveyor system, transfer tower & auto stacker
- New export conveyor system, product hoppers & transfer tower
- New product sample and weigh station
- Upgrading of jetty conveyors and transfer chutes
- Services such as electrical and water reticulation
- Early 2012: All construction works fully completed, commissioned and handed to Fremantle Ports to operate and maintain

OUR INVOLVEMENT

- Electrical, controls and SMP construction and commissioning of:
 - Stacker / Unloader
 - Rail receivable
 - Five new ore conveyors
- Installation and commissioning inclusive of all electrical panels
- New HV & LV reticulation and connection to existing services
- Three new substations
- Quality assurance inclusive of all testing and verifications
- Controls design
- Commissioning management
- Interfaces to existing plant & equipment
- Management of Subcontractors