ENGINEERING APPLICATIONS – PROJECT DESCRIPTION

Incitec Pivot – Refurbishment of CV240 Conveyor

Client: Incitec Pivot, Gibson Island QLD

Project: Refurbishment of CV240 Conveyor

Duration: January 2013 to March 2013

Man Hours: Workshop Fabrication – 85

On-site Construction – 1150

Description of ENAP's Scope:

ENAP's scope was to refurbish a severely corroded conveyor at the Gibson Island site for Incitec Pivot. This conveyor returned product from the Granulation Plant back to the Product Distribution Centre, so is a critical part of the plant.

There were two 26m long, 9 tonne conveyor sections to be removed from their position 22m above ground level and transported to an on-site fabrication area to replace the corroded steelwork. Upon inspection at ground level, it was determined that one half of one section was too corroded for repairs, with a new section urgently fabricated in ENAP's workshops and transported to site. This section was joined to the existing section on site. ENAP had a site team of six boilermakers working from two diesel welder generators for on-site structural repair work. After the structural repairs were completed, the client organised for blast and painting of the entire conveyor frames. The completed conveyors were reinstalled in position safely.

A critical part of this project was the safe removal and reinstallation of the two 9t conveyor modules. ENAP was able to complete this project safely through preparation of a Project Specific Construction Safety Plan, JSEA's and preparation of detailed crane lift studies. The conveyor modules were lifted with a Liebherr 1350-6.1 (350T capacity) slew crane supplied by Universal Cranes supported by a 130T slew crane with dogbox to access the conveyor frame connections.

ENAP's scope included:

- Development of lift strategy and coordination of detailed lift plan
- Preparation work on conveyor gantries to remove air lines and building cladding for conveyor frame to be removed
- Removal of two 26m long, 9 tonne conveyor frames from installed location with 350T slew crane and transport to site fabrication repair area
- Removal of handrail frames, FPR mesh, conveyor covers, trough and return idlers to allow structural refurbishment
- Structural repair to two conveyor modules, which involved replacement of approximately 3.7t of steel

- Fabrication of one new half of a conveyor module, and joining on site, including preparation of shop-detail drawings
- Reinstallation of handrail frames, FPR mesh, conveyor covers, trough and return idlers after blast and painting of conveyor frames
- Reinstallation of two 26m long, 9 tonne conveyor frames to installed location with 350T slew crane
- Reinstating air lines and building cladding, and completion of conveyor fit out including tracking conveyor belt for recommissioning

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