

# VOPAK B4A EXPANSION PROJECT – BROWNFIELD



Vopak Terminals Australia are expanding their Botany Site to include new tanks on land on the East side of Friendship Rd also referred as B4A Expansion Project. EnerMech was engaged to deliver the Brownfield contracts for the structural, mechanical and pipeline (SMP) and the electrical and instrumentation (E&I) works to modify the existing terminal. This work provided connections from the existing terminal to the new Greenfield project.

**Client:** Vopak Terminals Australia

**Year:** 2020 - 2021

**Service:** Mechanical, Electrical and Instrumentation

## Scope of Work

### Structural, mechanical and piping (SMP)

Supply, installation, testing and commissioning of the following:

- Densitometers on wharf lines
- B4A transfer lines TL1 (500NB) and TL2 (400NB)
- CTP connection and flushing loop
- Manifold receipt headers and pipe modifications
- Slops piping and equipment relocations
- Structural platforms and pipe bridge
- Hydrostatic testing of all pipework
- Flange management of all flanges
- NDT on all welding
- Coatings and painting
- Fabrication of all spooling offsite
- Civil works – footings and bunds

### Electrical and Instrumentation (E&I)

Supply, installation, testing and commissioning of the following:

- Disconnection and removal of VRU control panel
- Modifications to existing main switch-board
- Low voltage cabling
- Power cabling
- 30kVA uninterruptible power supply (UPS) and distribution board
- Cable ladder installation
- Cabling and field junction boxes for 24 new actuated valves
- Cable terminations
- Equipment and cable labelling
- Equipment earthing
- EHA installation and inspection for all equipment installed

## Project Delivery

EnerMech's highly skilled and competent workforce with experience in working in major hazard facilities (MHF) developed safe work methods to perform the construction, testing and commissioning of all interconnecting works, as well as managing the quality assurance (QA) completions process.

During the project over 2000 metres of pipe was installed and hydrostatic tested. This involved more than 800,000 linear metres of pipe welding and 1300 fit-ups with 0% NDT fail rate. The team also provided flange management and traceability of over 300 flange joints installed on site.

On the electrical and instrumentation scope over 7000 metres of power and control cable was installed and more than 70 hazardous area inspections carried out with complete QA dossiers handed over to Vopak. The team also carried out testing and commissioning of all electrical and instrumentation to relevant specifications, standards, regulations and codes.

All work was delivered on time and of a quality that exceeded the client's expectations.

## Key Benefits

EnerMech was able to assist the client in resolving design issues and being able to propose a valuable solution with no impact to the delivery schedule.

Seamless operations handover and technical support

Energisation of systems in the required timeframe

Implementation of EnerMech's quality and completions system