



Photo: Flinders Ports

Flinders Ports fuels future SA energy needs with additional berth facilities

Flinders Ports -

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The new liquid fuel import facility at Flinders Ports' Outer Harbor in South Australia officially was opened in April 2014.

Flinders Ports already operated a common-user fuel import facility at M-berth in Port Adelaide's inner harbour, but the company's strategic review revealed this as a supply chain risk.

All of the fuel needs for metropolitan Adelaide were dependent on this facility and sole reliance on M-berth meant there was no redundancy in the system.

“Security of supply is a big focus for us. As the only port operator in the state that handles liquid fuel imports we know that consumers and businesses are depending on us, because

South Australia is one-hundred percent reliant on imported petroleum,” said Flinders Ports general manager Stewart Lammin.

The search was on for a new common-user site and Flinders Ports teamed up with industry partner Caltex to secure the state’s fuel supply chain.

Berth 4 at Outer Harbor was selected as the preferred site.

In addition to the main goal of supply chain security, the deeper water at berth 4 meant that Flinders Ports would be able to accommodate larger vessels than in the inner harbour.

For the first time long-range (LR) vessels as well as medium-range (MR) ships would be able to call at Adelaide, offering fuel importers economies-of-scale.

But choosing Outer Harbor meant that Flinders Ports’ infrastructure department had to work within the parameters of an existing berth to retrofit a modern fuel handling facility.

The first step was for the engineering team to demolish the old timber berth.

Coordinating dredging at the berth to a depth of 13.8 metres was the next stage.

Once that was completed, construction could begin.

A new concrete loading platform, 18 by 14 metres, mounted on steel piles replaced the timber.

Connection points for the fuel-loading arms and a water supply for ships were put in place.

One dolphin and four fenders bolstered by a total of five strong points across the structure were built to complete the new fuel-handling berth.

Caltex supplied two brand new loading arms from Kanon, which feature dry break couplings to reduce the risk of spillage.

The loading arms have a maximum flow rate of up to 2.6m litres of fuel per hour, optimising turnaround times for ships.

Two pipelines, each 2.4km in length, transfer the fuel from the berth to the Caltex Fuel Farm at Pelican Point, which has a commissioned stage one capacity of 85m litres.

Additional safety measures are required at fuel handling or storage zones because explosion and fire are potential risks.

Supplier evaluations were conducted for the fire detection and fire-fighting equipment that Flinders Ports has installed at berth 4.

Fully compliant with Australian standards and the International Safety Guide for Oil Tankers and Terminals (ISGOTT), the fire system features two remote fire monitors, an emergency fire-fighting activation switch, a fire-fighting control centre, supported by a portable control panel.

This portable control panel also known as “the belly pack” enables the South Australian Metropolitan Fire Service’s (SAMFS) firefighters to move around the site to ensure their own safety and to optimise any fire-fighting effort.

Flinders Ports has facilitated emergency training for the SAMFS at the site and staff at Flinders Ports receive ongoing training on emergency protocols at the facility.

This means activating the automatic fire-fighting system and waiting at a safe distance from the facility until the SAMFS arrives.

The mantra is “activate, then evacuate”.

The facility welcomed its first vessel, the Jupiter Express on February 13, 2014 and since then has handled several other MR-class ships.

Flinders Ports is currently working on the simulator modelling and testing the requirements for LR 2 vessels.

These larger, long-range vessels, which can be up to 250 metres long, 80,000 dwt with 42-metre beams, are expected to arrive at Outer Harbor in the second half of 2015.