

# PROJECT: JETTY 1 UPGRADE SIMON STORAGE, SEAL SANDS

VALUE: £1.6M  
ROLE: MAIN CONTRACTOR  
START DATE: MARCH 2014  
COMPLETION: MAY 2014

CLIENT: SIMON STORAGE SEAL SANDS  
SEAL SANDS,  
MIDDLESBROUGH,  
CLEVELAND. TS2 1UB

- Construction of new berthing dolphin (10m x 10m)
- Remove & replace fendering system
- Diving operations for installing CP System
- Precast works
- Restricted access/egress through operational petro-chemical plant.
- Large scale marine plant operations.
- Environmentally sensitive working area.

The following listing details the main aspects of the Simon Storage Jetty Upgrade works which were necessary to enable larger capacity vessels to use the berthing facility: -

- 1) to dismantle and remove the existing redundant fenders on existing berthing dolphins A, B & C. These existing RC dolphin structures were then the subject of concrete repairs and installing a pair of 762mm dia tubular steel fender support piles into the seabed on the seaward side of the structure utilising barge mounted crane c/w associated marine piling equipment. Final minor modifications to the structure were required so to enable the installation of the new more robust fendering system.
- 2) Our client Simon Storage Ltd had commissioned a fully detailed structural report which identified the existing jetty was inadequate in terms of the increased size of the vessels wishing to use the berth, therefore an upgrade was necessary. This was provided by construction of a new 10m x 10m RC berthing dolphin founded on 9nr 1220mm dia tubular steel piles which were conventionally driven into the seabed utilising both marine and land-based piling plant & machinery. The land-based crane was a 550-tonne capacity crawler crane which was required to provide the necessary lift capacities at the radii involved. This new Dolphin also had a fendering system installed to enhance the jetty's berthing capability.
- 3) Our design partners Fairhurst designed a cathodic protection system which would protect the steel berthing elements which were within the tidal zone. The installation was carried out using Sealane Inshore divers, assisted by both the land-based crane and the barge mounted cranes to sling, lift, lower into position and fix the individual CP components.



*Simon Storage Seal Sands Jetty 1 Upgrade works - various construction activities.*

## CHALLENGES

Working within a live petrochem plant with restricted access & egress routes. Strategic planning required as could only utilise the dedicated zonal working areas provided. Adhering to the client stringent permit to work system on site at all times which was continually audited to ensure compliance.

## PROGRAMME

A planned duration of 18days was initially set for undertaking the works so to minimise the disruption to the operational jetty. A minor overrun was encountered due to late delivery of the fendering components. This was mitigated by agreement with Simon Storage.



*Simon Storage Seal Sands Jetty 1*