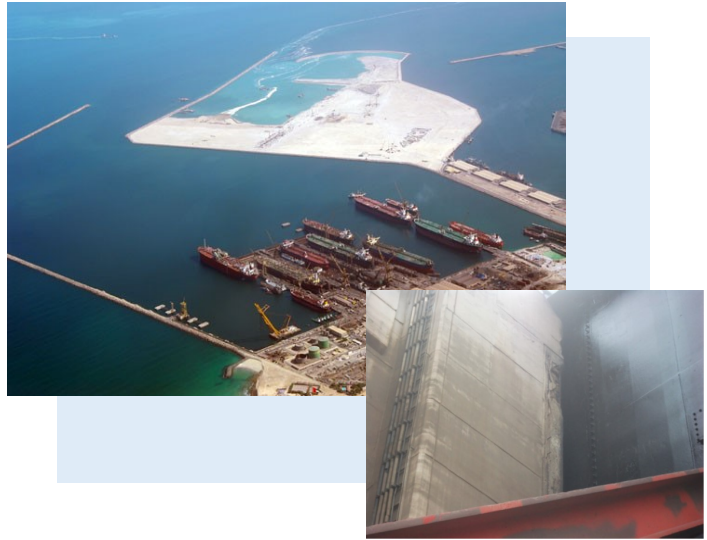


Dry Dock, Dubai



Country: Dubai
Timescale: April 2012
Structure: Dry Dock
Client: Port Authority

CPT Treatment used:
DuoGuard™ Hybrid Anode™ System



The Dubai Dry Dock, completed in 1983, is the largest port facility in the Middle East. The facility on an average handles 350 vessels in a year, most of them ULCCs (Ultra Large Crude Carriers) and VLCCs (Very Large Crude Carriers).

Problem

The docks are regularly exposed to chloride salts from the seawater introduced into the docks. In addition, temperatures are high and thus steel reinforcement corrosion is accelerated. This leads to typical corrosion issues encountered on marine structures as shown below, where concrete spalling has initiated and propagated along the structural member.

Solution Developed

DuoGuard 750 anodes were installed into two separate zones, one above water level and one below water level. A specific rapid setting material was developed in order to allow installation below water level. Electrical connections from both zones of anodes were run to termination enclosures on the top of the dock area to allow easy access during the impressed current phase and for future monitoring as required.

Benefits

The client decided to install the DuoGuard system to offer long term protection to the area, with the knowledge that chloride contamination remained within the parent concrete. The DuoGuard system offers the advantages of rapid installation and no requirement for maintenance once installed.



CPT Products Used:

- ◆ DuoGuard™ 750
- ◆ DuoCrete SD Mortar

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