

# Aust Jetty



Aust Jetty on the Severn Estuary provides vital access to a National Grid pylon.

Location  
**The Severn Estuary,  
Gloucestershire**

Client  
**National Grid**

Completed  
**September 2016**

Structure  
**Jetty**



## The Problem Identified

The deck, beams and trestles of the jetty are constructed of reinforced concrete and were heavily contaminated with salts from the Severn tidal estuary.

This led to corrosion of the embedded steel and cracking of the cover concrete. A previous ICCP system (impressed current cathodic protection) had been stolen with 1 month of installation and had never operated, thus the need for a vandal proof solution.

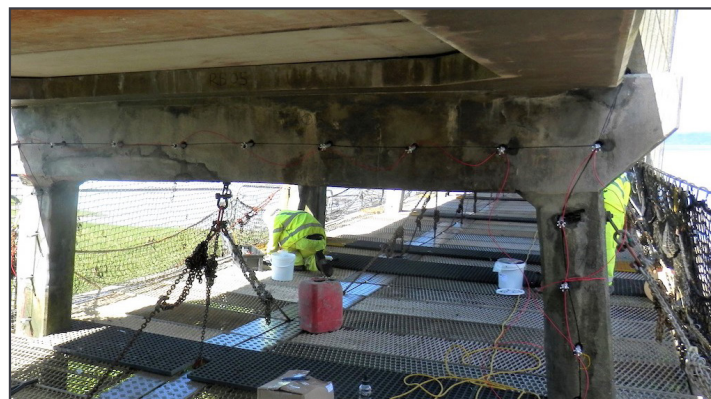


## The Solution Developed

CPT designed a long term, low maintenance solution to control corrosion and extend the life of the structure. A targeted DuoGuard™ hybrid anode system, with a 25 year design life, was chosen in competitive tender against an ICCP system.

DuoGuard anodes were placed into 2-3m sections of the trestle legs above the tidal zone and into the deck beam soffits, platform beams and the platform deck. The anodes were grouted into small drilled holes within areas of identified corrosion risk and then connected to a temporary external power source for a period of seven days.

A relatively high current density was applied, stopping active corrosion. The power source was then removed and the same DuoGuard™ anodes were left in place to



*Installation of DuoGuard anodes into trestles.*

operate self-sufficiently, generating galvanic current and controlling corrosion. The system can be accessed through local enclosures.

Bulk zinc anodes were used to protect the jetty legs in the tidal zone.

CPT Level 4 Corrosion Engineers designed the system, which made it through the rigorous National Grid approvals process, and CPT technicians supported the on-site installation.





Aust Jetty, Severn Estuary



## The Benefits Provided

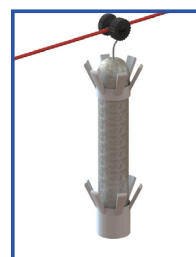
The DuoGuard™ system has the benefit of providing long term protection coupled with low maintenance, critical for remote structures such as Aust Jetty.

The DuoGuard system was selected due to the 25 year design life offered, speed and simplicity of installation, the supporting technical data, the technical support offered by CPT and, most critically, the absence of exposed and vulnerable power and control equipment associated with ICCP.

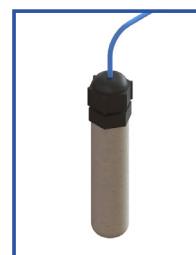


Bulk anodes in tidal zone.

## CPT Products Used



DuoGuard™

DuoCrete  
SD MortarCPT Bulk  
AnodeMN15  
Reference  
Electrode