the Latest Developments In The Management Of Cathodic Protection Systems

Impressed current cathodic protection (ICCP) for reinforced concrete structures is a proven technology which has provided long-term corrosion protection to large numbers of bridges and wharves across Australia.

One of the main challenges associated with ICCP systems are the ongoing maintenance requirements over the design life of the system.

Recent advances in communications hardware and software, particularly in terms of improved reliability and lower costs, has provided new opportunities for the development of reliable online monitoring systems which can provide an effective platform for the ongoing maintenance of corrosion protection systems.

This paper includes an example of an online platform known as CPMS (Cathodic Protection Management System) which is used by several asset owners in Australia. This integrated system manages historical documentation and records for the structure(s) including original specifications, as-built drawings, maintenance records and performance records.

Another key attribute of CPMS is its capability for live monitoring (via a modem) of cathodic protection current delivery to the structure(s) and the ability to perform remote functional checks of CP system performance. These features allow asset managers to confirm in real time that their CP systems are operational, and in the case of faults, can rely on an alarm function to be notified of the fault.

This paper provides an overview description of CPMS and the advantages it offers for asset managers who operate individual or multiple cathodic protection systems.