

Hunterston Power Station

Contractor—Norfolk Marine

Engineer—Proserve Ltd

2008

To enable decommissioning to one end of the nuclear storage pond, a reinforced Concrete retaining wall was designed, and constructed underwater within a radioactive control zone. The wall was 8 m high, 5 m wide and 1.2 m thick. A construction system was developed which allowed the wall to be constructed automatically within the contaminated pond water. An aluminium control frame was designed to overcome the lifting weight restrictions that could be rotated during lifting and then be floated into place. The frame carried prefixed reinforcement and face fabric formwork connected to condensed perimeter grout bag seals, which were grouted after positioning.



Location

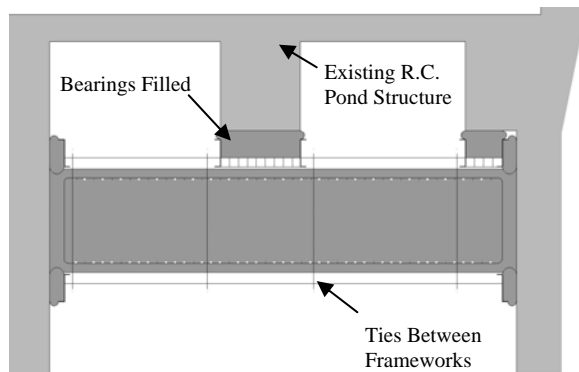
proserve
MARINE CONSTRUCTION ENGINEERS

Proserve Ltd.

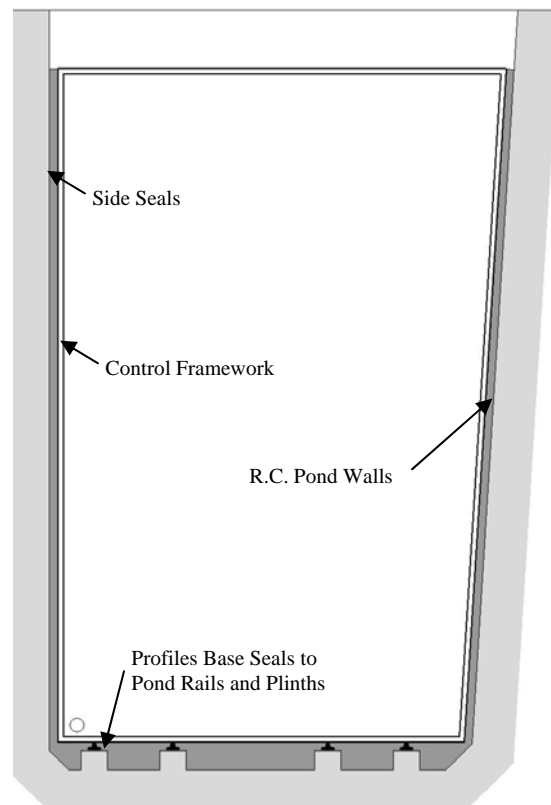
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Fabriform



Section



Elevation

To ensure that the wall did not shrink and give leakage problems, an expansive agent was included in the micro concrete mix, along with hydrophilic strips incorporated into the side seals. A full width wall shrinkage test was conducted to prove the effectiveness of this arrangement.

A high degree of temporary works design, planning and risk management enabled the works to be completed safely with a minimum of worker exposure time.