

CASE STUDY: CORROCOAT PROTECTS SPILLWAY GATES

CORROSION PROTECTION FOR AUSTRALIAN SPILLWAY GATES

CLIENT

Water Industry, Australia.

APPLICATION DATE

1995 & 2004

SCOPE OF WORK

Replace original coal tar epoxy coating.

SUBSTRATE

Mild Steel & Cast Iron fabrication.

PRODUCTS

Upstream submerged areas: Polyglass VEF

Downstream submerged areas: Polyglass Zipcoat

Rubbing areas: Plasmet HTE

Normal atmospheric exposure areas: Plasmet ZF

APPLICATION METHOD

- Grit blast to ISO 8501-1 cleanliness std Sa3
- Polyglass VEF applied at 1000µm dft.
- Polyglass 100 Zipcoat applied at 1000µm dft.
- Plasmet HTE applied at 2000µm dft.
- Plasmet ZF applied at 400µm dft.

CORROCOAT CREDENTIALS

- Access to the gates is difficult and expensive being 80 metres above the river bed, so long term corrosion protection is highly desirable for this asset with a required life of 200 years.
- Despite the use of established coatings and reputable painting contractors, early coating breakdown was recorded in the first couple of years of the gate re-painting program.
- Corrocoat Engineering Victoria offered a 10 year warranty with an expected life of 30 years.
- In 1995, Corrocoat was requested to refurbish three gates as a result of a life cycle cost-benefit comparison exercise, between a combination of Corrocoat systems and other lower cost epoxy resin systems. Corrocoat was awarded the work for 3 gates, and it was carried out successfully, in the middle of winter, with the gates being put back into operation on time.
- Inspections in 2004 have revealed that whilst further deterioration of the epoxy resin / coal tar epoxy coated gates is evident, no such deterioration of the three gates coated using Corrocoat's system was noted by the delighted customer, with the equipment remaining in excellent condition.



The spillway gates at Glenmaggie. Access to the gates was the first hurdle for Corrocoat.



One of the spillway gates after coating – note the complex geometries.



Visual inspection of one of the gates after service – showing no coating breakdown.

CORROCOAT