

Reference Project

Energy

Construction: Sacrificial Anode Install

Location Cob Powerstation, Nelson

Date March 2014

Client TrustPower

The Cobb power scheme was constructed in the 1940's. The twin penstocks are 2.2km long and approx 1m diameter. Replacement of the internal coating is problematic and TrustPower are investigating the effectiveness of internal sacrificial anodes as a corrosion protection measure.

Abseil Access Ltd were selected to do the initial coatings & corrosion survey and a further corrosion pit analysis inside the pipe. Information provided was crucial to the decision to install a corrosion prevention system.

The upper section of the penstock was chosen for a trial run of magnesium sacrificial anodes. Attachment to the inside surface is with welded studs. Trials were undertaken to ensure the proposed method would work in the long restricted pipe sections. Additional resistance and reference probes were also installed to assist with monitoring the cathodic protection.

35 anodes were successfully installed in the first 130m section within the 10 day shutdown period. All internal stud welds were tested independantly and external probe welds were done using ASME certified welders.

