Cathodic Protection Monitoring for Buried Fuel Tanks

Remote monitoring, annual performance review and practical corrosion risk management

Protecting buried steel assets with confidence

Buried fuel tanks are exposed to corrosion risks that are often hidden from view. A well-designed cathodic protection system, supported by reliable monitoring, helps confirm that steel assets remain protected and that emerging issues are identified before they become costly failures.

Project overview

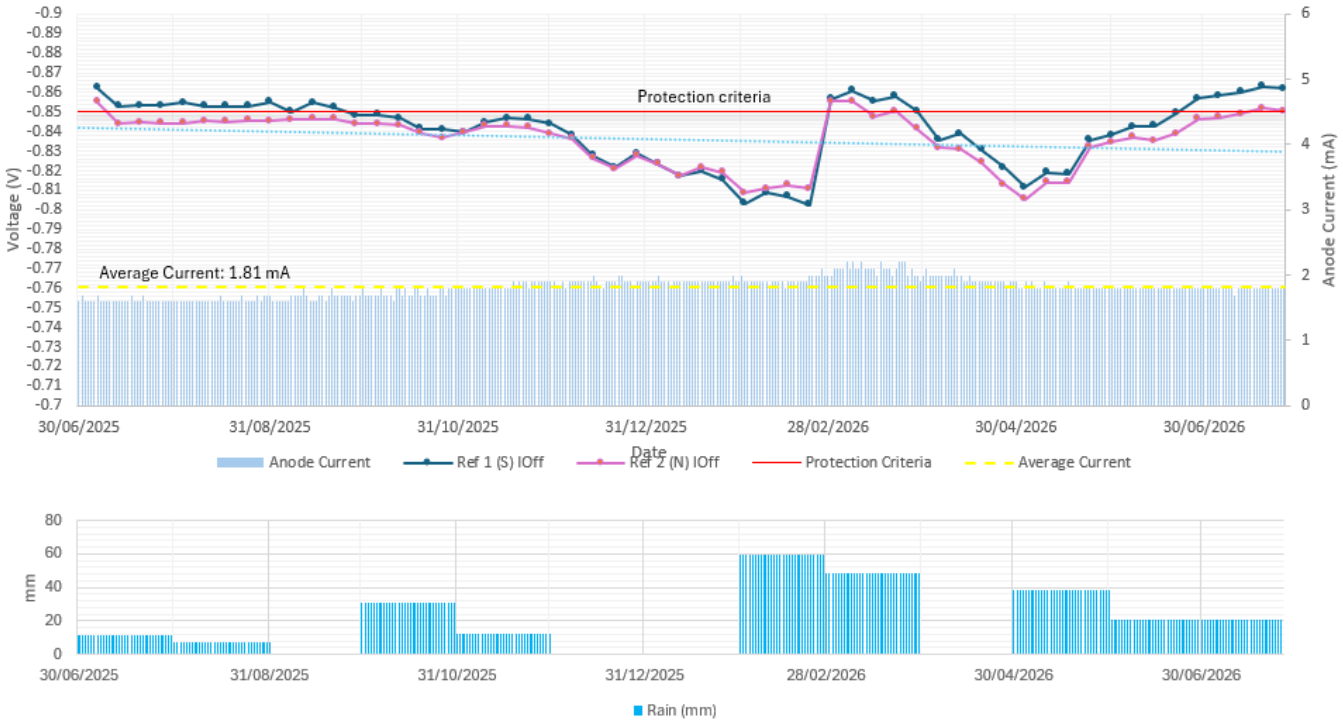
ACC provides annual cathodic protection performance reviews for buried aviation fuel storage tanks protected by sacrificial anode cathodic protection systems. For remotely located sites, ACC assesses remotely collected monitoring data to evaluate protection levels, confirm system performance against recognised criteria and review long-term potential trends.

What we deliver

- Review of remote cathodic protection monitoring data and Instant OFF potential trends.
- Assess protection performance against applicable cathodic protection criteria.
- Interpret seasonal changes in soil moisture and their effect on system performance.
- Identify indicators that may suggest future sacrificial anode depletion.
- Provide clear recommendations for ongoing monitoring and future survey timing.

Why remote CP monitoring matters

Remote monitoring provides regular visibility of cathodic protection performance without relying solely on periodic field attendance. It allows engineers to track protection levels over time, identify seasonal trends as shown in the trend graph below and respond early to changes that may affect corrosion risk.



Key outcome

Cathodic protection performance reviews help asset owners understand protection levels, interpret seasonal trends and make informed maintenance decisions. In this completed review, the monitored coupons met the required protection criterion during the assessment period. Trend analysis showed the expected seasonal influence: wetter conditions improved current flow, while drier periods reduced achievable polarisation alongside lower soil conductivity and corrosion activity. These findings relate to the assessed tank and monitoring period, rather than guaranteeing performance at other sites or in future periods.

Benefits for asset owner

- Improved confidence in buried tank corrosion protection.
- Early warning of declining protection performance.
- Reduced reliance on reactive maintenance.
- Clearer evidence for compliance and asset integrity reporting.
- Better planning for future anode replacement or system upgrades.

Ongoing recommendation

Continue routine CP monitoring and annual performance reviews. Less negative Instant OFF potential trends over time may indicate sacrificial anode depletion and should be reviewed by a corrosion specialist to determine whether further investigation or anode replacement is required.

How ACC can help

ACC provides cathodic protection surveys, remote monitoring reviews, corrosion risk assessments and practical recommendations for buried tanks, pipelines and other critical infrastructure. Our focus is to help asset owners maintain protection, manage risk and make informed maintenance decisions.