



Corrosion Services

Capabilities

Degradation due to corrosion leads to significant costs over the lifetime of an asset and can undermine efforts to ensure structural and environmental sustainability and stakeholder safety. This risk can be minimized by including corrosion engineering during the design stage of the project and proactively managing the risk throughout asset operation.

Corrosion Risk Audits

To effectively design a corrosion control and maintenance strategy, it is important to identify the corrosion risks for the exposure conditions that are present at the site. For example, seawater or brackish water in process streams can vastly increase the risk of corrosion and accelerate the frequency of maintenance activities.

Through proper material selection and the utilization of adequate corrosion protection strategies, the risk of corrosion can be mitigated for the required service life. Designs can be reviewed upfront to ensure corrosion risk is identified, managed, and controlled. This can include the implementation of coatings, inhibitors and electrochemical protection techniques such as cathodic protection (CP).

For existing sites, Hatch has also performed in-depth evaluations involving visiting sites and conducting technical evaluations of key areas identified to have a high level of inherent risk. This includes current condition assessments, likely failure modes, and fitness for service (FFS) assessments of any relevant structures.

Operational Support

The inclusion of proactive corrosion monitoring and inspection strategies can create a positive change in the site operations by reducing unscheduled downtime and increasing asset reliability. Planning in advance for corrosion allows for the design of smart and economical solutions that cater to the specific needs of the site.

Hatch can develop a detailed framework that addresses how clients can de-risk their facility and continue to operate with a high level of efficiency. The comprehensive framework typically provides several strategies that may be employed to de-risk client assets, as well as optimize existing operations.

Services Include:

- Corrosion Risk Assessments
- Design of Corrosion Control and Prevention Strategies
- Corrosion Management System Design and Implementation
- Cathodic Protection Design and Operational Support
- Corrosion Testing, Monitoring, and Inspection
- Material Selection and Product Comparison
- Root-Cause Failure Analysis



Corrosion risk identification and control during the design of gold mine expansion that used seawater in its processes



Hull inspection and a CP system design to protect a floating material separation plant in an acidic mining pond

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