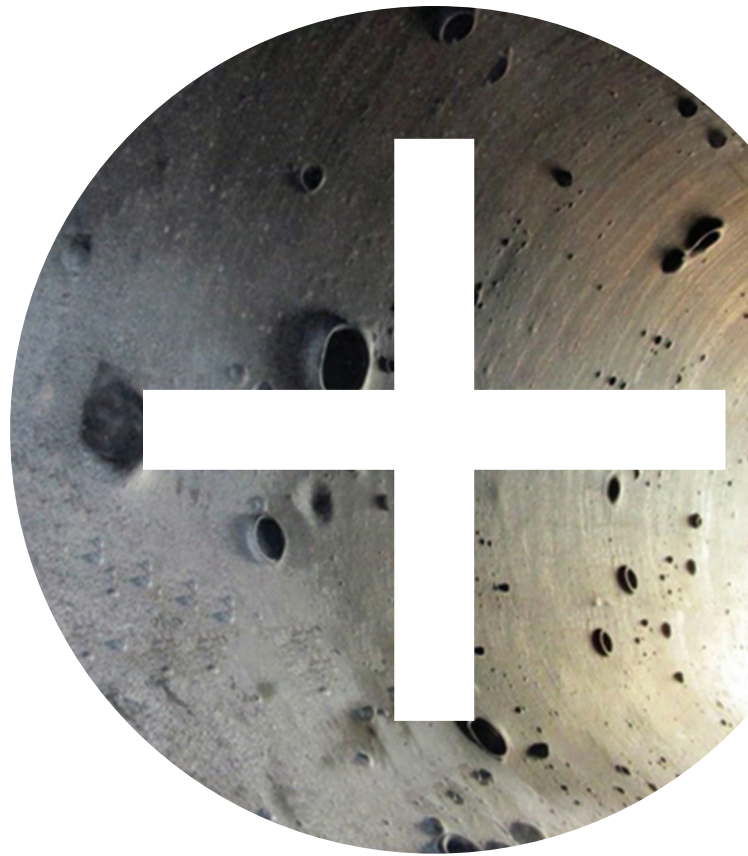


Potential Adjustment Protection[®] (PAP[®])

Corrosion Control for Flue Gas Desulfurization Scrubbers

When your FDG scrubber lining fails... How and when will you know the extent of damage? Will you be protected from metal loss?



Corrosion Prevention

Due to strict environmental restrictions Flue Gas Desulfurization (FGD) scrubbers are commonly used in power plants to remove sulfur dioxide (SO₂) and other pollutants from the gas stream. However, due to the chemical composition of the flue gas, the bare wetted surfaces of FGD scrubbers can suffer from severe pitting and general corrosion after only a few months in service. This puts the vessel at risk of structural failure and raises the likelihood of a costly unplanned outage. Based on an electrochemical corrosion prevention technique proven in the pulp and paper industry decades prior, Corrosion Service's PAP[®] Potential Adjustment Protection[®] mitigates all forms of corrosion and halts further scrubber deterioration.

Dependable

PAP[®] is a proven technology, and scrubber systems have been supplied throughout the North American power generation industry. Related to cathodic protection, PAP[®] requires only minor modifications to existing vessels and minimal adjustments to new designs. Additionally, PAP[®] can be used in conjunction with all types coating system, providing a cost effective method of monitoring coating integrity and providing fail safe protection in the event of coating failure. A programmable PAP[®] controller passes an electrical current between the surface of the vessel and immersed anodes. This protective current polarizes the metal surface, preventing general corrosion and localized pitting. A controlled DC current is then applied continuously, to maintain the polarization and provide indefinite protection.

Features & Benefits

- + Compatible with all types of coating system, providing fail safe protection and condition monitoring.
- + Avoids high cost associated with installing/maintaining brick linings, alloy wallpapering, or exotic alloys.
- + Easily installed on new vessels or retrofitted onto existing vessels.
- + Fully automatic operation and virtually maintenance free with the ability to provide a control room alarm in the event of a system fault.
- + Long service life with existing systems experiencing corrosion free operation for several decades.

Process Engineering

All FGD scrubber vessels are different, and whether the project is new build, rehabilitation, or routine maintenance, our talented team of industry professionals is empowered to understand the unique characteristics of every enquiry. This is important because as an organization, Corrosion Service strives to provide the extremely high level of support, partnership and customized solutions that our clients require on a daily basis.

Our Process Engineering Group (PEG) is strategically located in Toronto, Canada and is the primary line of contact for PAP® Potential Adjustment Protection® clients throughout the world. PEG is capable of providing front line expertise and team members are highly trained, with all engineering staff certified at various levels by the National Association of Corrosion Engineers.

Materials

Our materials supply team is capable of providing a full-range of PAP® Potential Adjustment Protection® parts and equipment both manufactured in-house and sourced from partner suppliers. Our dedicated supply chain team is based in Toronto alongside our material distribution hub, which is capable of delivering materials throughout the world on short notice.

Safety

Safety is a fundamental company value that governs everything that we do. Our organization is firmly committed to protecting the health and safety of our Team Members, Customers, Contractors and the General Public. Working together on a foundation of commitment and enthusiasm, while integrating Safety into all facets of our operations, we constantly strive to achieve a workplace free of hazards, injury and illness.

Quality

Our commitment to providing a combination of unparalleled customer service with a deep understanding of customer needs, directs the focus of our quality management system and instills a modern quality consciousness throughout our company. By adopting a culture that embraces complete quality responsibility, beyond the basics of inspection and test, every team member is empowered to take the necessary steps to realize that commitment.

Our quality management system is aligned with the requirements of ISO 9001 and provides the high level of flexibility required in today's fast-paced engineering world. Our dedicated quality professionals work with stakeholders to implement quality management practices that ensure we facilitate the efficient and effective delivery of products and services.

Project Management

All team members are committed to the successful delivery of projects, and success is built upon a foundation of delivering on time and on budget. That is why in 2013, we established our first Project Management Office (PMO). The primary role of Corrosion Service's PMO is to provide all team members throughout the organization with a common PMBOK aligned framework, for launching and implementing project activities. Monitoring of project delivery is facilitated through our Industry leading Enterprise Resource Planning software, and a project management environment built upon the Microsoft Project platform.

Our Services

- + Engineering/Design
- + Maintenance
- + Troubleshooting
- + Materials supply
- + Project Management