Cathodic Protection and Corrosion Risk Assessment

MATERGENICS Pittsburgh specializes in cathodic protection, corrosion risk assessment, materials and root cause failure analysis. Over the years we have provided these services to a wide range of industries and business owners to ensure safety standards are met, maximum performance, and prioritized integrity.

Knowing the corrosion rate of a metallic material is critical to determine the remaining life of underground structures. It also helps to understand whether or not mitigation, coating or cathodic protection is required. We at MATERGENICS are not only able to determine the corrosion rate, but we also have the expertise to provide you with a recommendation that is specific to your application. This is what distinguishes us from our competition.

One of the best ways to protect underground assets exposed to corrosive soil or moisture is through the use of cathodic protection. Cathodic protection effectively protects underground or submerged metallic structures through the use of a negative potential applied by an external source to the structure. Commonly, once the structure has been made sufficiently negative, accelerated corrosion does not take place.
The method is typically applied to buried pipelines or other steel asset type.

We offer innovative and technologically advanced corrosion engineering methods to:

1. Detect corrosion activity on buried pipelines and other steel asset type
2. Asses risk
3. Determine corrosion rate
4. Calculate estimated remaining life
5. And apply cathodic protection (CP) to assets at risk of accelerated corrosion.

We specialize in assessment of buried pipeline or other asset types without the need for extensive excavation.

MATERGENICS
Materials and Energy Solutions

Contact Details

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❯ CORROSION ENGINEERING AT MATERGENICS



FIELD & LABORATORY FAILURE ANALYSIS

MATERGENICS Pittsburgh has created a niche in the market by offering solution engineering and risk assessment of pipeline and other infrastructure, aerospace, manufacturing and other industries. We offer efficient and creative problem solving abilities, rapid turn-around times, and a fully equipped lab supported by a multidiscipline team of materials and corrosion engineers, chemists, electrochemical and micro-characterization specialists. MATERGENICS also has a Ph.D. NACE Certified Corrosion, Coatings, Materials Selection and Design, Cathodic Protection Specialist.

• Cathodic Protection

- Certified Cathodic Protection Specialist, Engineers & Technicians
- Design, Installation and Monitoring
- Cathodic Protection Testing
- System Wide Cathodic Protection.
- Development of CP Criteria / Design
- Internal & External Corrosion Monitoring
- CP Audits and Trouble-Shooting for Underground Assets
- Corrosion

• Corrosion Risk Assessment

- Below Grade Corrosion Detection &
- Risk Analysis, Minimal Excavation
- Structural Integrity Assesment
- Corrosion Rate Determinations
- Estimated Remaining Life Assessment
- Coating Assessment
- Corrosion Mapping
- Electrochemical EIS, DC and AC Testing

• Corrosion Mitigation

- Corrosion Management Programs
- Paint/ Coating Selection
- Materials Selection
- Development of Specification
- Backfill Selection
- Sensor Development
- Corrosion Mitigation Consultation

• Materials Testing & Corrosion Engineering

- In-House Testing Laboratory
- Failure Analysis
- Coatings Analysis
- SEM/EDS, FTIR, Auger, X-Ray Diffraction
- Metals, Polymers, Concrete

• Special Services

- Soil Testing
- Coating System Selection for Corrosion Applications

• Data Management & GIS Mapping

- Safe, Secure access to your data in the cloud
- Real time data access
- Integrate with existing GIS and database solution
- Secure communication, global data recovery

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