







Cortec® Corrosion Engineering and Field Services (CEFS) group possess the industry-leading expertise and resources to provide an incomparable suite of corrosion control solutions to owner/operators of Tank Farm facilities.

# **Engineering & Design Services**

## Innovative Corrosion Control Engineering & Design Solutions

Cortec's CEFS team works hard for its customers to solve virtually any corrosion control challenge. We are able to utilize a wide array of technologies and resources. Innovation is a specialty and we welcome the opportunity to provide custom designed corrosion control solutions.

## • Cortec Vapor Corrosion Inhibitor (VpCI®) Solutions.

Corrosion control system solutions are designed using the tremendous selection of VpCl® technologies and processes.

#### • Cathodic Protection Solutions.

Corrosion control system solutions utilizing cathodic protection technologies are provided where applicable.

#### • Other Corrosion Control Technologies.

CEFS will design and recommend other corrosion control technologies where applicable.

## Total Facility Corrosion Management Programs

Effective mitigation of asset corrosion begins with: Well engineered comprehensive programs that are designed to produce coordinated application of the appropriate technologies; Then followed by: Thorough organized corrosion management programs.

#### • Baseline Corrosion Assessments.

Cortec provides comprehensive assessments designed to identify the areas with satisfactory attainment of corrosion control; and areas with corrosion control deficiencies.

### • Corrective Action Programs.

CEFS then provides custom turnkey solutions for mitigation of identified corrosion control deficiencies. These programs can be tailored for compatibility with annual budgets as necessary.

### • Maintenance of Corrosion Control Systems.

Maintenance of corrosion control system is critical. CEFS provides complete maintenance specifications and process descriptions.

## Real-time Corrosion Rate Monitoring Programs

The measurement of critical asset corrosion rates in real-time is a vital component of any corrosion control system. It is valuable for identification of areas where proactive corrosion control systems are needed; and also is important to provide effective monitoring of active corrosion control systems.

- CEFS is committed to designing corrosion monitoring programs that utilize state of the art equipment and technologies to accurately and efficiently monitor corrosion.
- Corrosion monitoring systems can be stand alone or in conjunction with existing corrosion control systems.

## **Aboveground Storage Tank Corrosion Control**

Corrosion control of ASTs is a specialty. Cortec's CEFS group offers turnkey corrosion control system designs & installations for virtually any type of AST construction; and for the entire facilities where these tanks are located.

## Double Bottom ASTs with New Floors

- Custom engineered vapor corrosion inhibitor systems.
- New EcoPouch strip system produces effective VpCl® distribution, is easy to install and economical.
- Real-time corrosion rate monitoring included.

## New Single Bottom ASTs with HDPE Liners

- Custom engineered vapor corrosion inhibitor systems.
- New EcoPouch strip system produces effective VpCI® distribution, is easy to install and economical.
- Real-time corrosion rate monitoring included.

## Retrofit Installations for Double Bottoms and Single with Liners

- Custom engineered vapor corrosion inhibitor systems installed without disruption of tank service.
- Effective for any diameter.
- Industry leading experience with this application.
- Real-time corrosion rate monitoring included.

## Single Bottom ASTs

- Custom engineered undertank cathodic protection systems.
- Hundreds in-service today.
- Industry leading experience.
- Available as retrofit or for new construction.

## Control of Vapor Space Metal Corrosion on Fixed Roof Tanks

- System for this application under development.
- Cortec is soliciting feedback on customer issues with this problem.



\* Picture abstract from www.thefloatingroof.com





# **Additional Facility Applications**

Contact CEFS for engineering and delivery of corrosion control systems for a variety of other assets at pipeline terminals and refineries.

### **Control of Corrosion under Insulation**

- Custom engineered systems available for insulated piping and pipelines of any length.
- Custom engineered systems also available for insulated equipment or structures.
- Real-time corrosion rate monitoring included.

## **Corrosion Control of Hydro-tested Structures**

- Internal corrosion control while water is inside the asset, then also after the water is drained.
- Corrosion control solutions available for fresh water, brine and salt water.
- No time limitations.

## **Internal Pipeline Corrosion Inhibitors**

- All VpCl® products provide corrosion protection in pipeline headspaces and areas not directly contacted by the pipeline products.
- Solutions for a wide range of refined hydrocarbons, crudes, oil/water mixes and gases.
- Solutions for high temperature products also available.

#### **Surface Coatings**

- All coatings contain VpCI® technology for additional corrosion control.
- Both temporary and permanent coatings programs are available.
- Some coatings systems do not require sandblasting or other rust removal.
- Custom colors are available.

## **Equipment Preservation**

- A wide range of products and solutions are available for control of equipment corrosion during downtimes.
- Internal and external applications.
- No time limitations.







Top: Picture abstract from www.tank-consultants.com Middle: Picture abstract from www.bss.com.cn

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