



Unconventional Solutions, Inc.
Partnering with Your Industry to Repair - Protect - Upgrade

November 2023

Leading Edge

COATING CONDITION ASSESSMENT

Dealing with Atmospheric Corrosion

When selecting materials to deal with atmospheric corrosion, engineers have to balance three different objectives:

- Capital cost
- Operation and maintenance costs
- Functional conditions the material must operate in, yet still have acceptable attributions

Stainless steel is the obvious answer, but for entire systems, it can become cost prohibitive. So a cost effective answer would be to use carbon steel instead and protect it from the environment with a protective coating.

THE PROBLEM:

Maintaining many operating assets in an environment is expensive and challenging. Imagine you are a terminal operator with 30 terminals, each with 10 tanks each. If each tank had to be recoated every 20 years, that's around 15 tanks being recoated a year. But which ones would you coat first? Can you over coat, or must you remove the coating systems completely and restart from scratch? What products, which contractors, what is the expectation of coating performance?

The first step is understanding the condition of all the assets, so the work can be specified and planned. Starting your program off with coating condition assessment allows the operator to:

- Gather information for developing a detailed scope of work for specification purposes
- Provide a basis for budgeting for maintenance, and quantify spending
- Gain information to prepare a multi-year program to maintain the asset

Other information condition surveys can provide include:

- Information on coating performance
- Warranty and premature failure

Elements of a Good Corrosion Control Program



WHAT TO LOOK FOR IN A COATINGS ASSESSMENT:

Coating surveys quantify the key items that must be budgeted for including all coated surfaces, and may also include concrete, joint sealants, composites, and hard-to-coat areas. Information needed includes:

- Coating thickness
- Quantity of corrosion
- Operational requirements
- Coating adhesion
- Hazardous material identification
- Area layout/staging

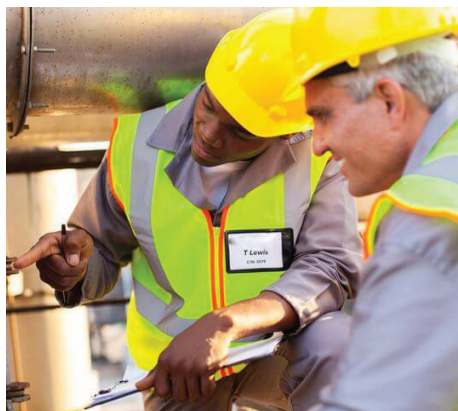
Condition surveys provide information on the 'what, where, and how' but often owners and engineers focus on the coating product itself to determine whether the corrosion control system performs to specifications.

ADDING COATING CONDITION ASSESSMENTS INTO CORROSION MANAGEMENT PROGRAM

A good corrosion management program starts with a coating condition survey to understand which direction you're going in. Once you analyze the findings of the assessment, you can perform a quality specification. Ensuring the right material is used, over the right surface preparation and under the right conditions, is critical to coating performance. These must occur simultaneously to get the intended effect. All this leads to an overall reduction of operating costs and maximize the terminal's lifespan. 

Read the full article today:

www.usigroups.com/how-to/coating-condition-assessments-first-steps/



How Is a USI Coating Condition Survey Conducted?

A coating survey is designed and carried out with planning, recording and reporting. It's essential for USI Group to conduct coating surveys using a methodical and structured approach. This ensures that each client's survey benefits from the same rigorous standards. The following steps form the core of a coating condition survey.

1. Define the parameters of the survey before the survey is started
2. Determine what is the expected output of the survey
3. Assess and recognize current grading conditions
4. Assess corrosive environmental issues and current conditions
5. Assess the current coating conditions, date of application, the coating manufacturer, the applicator, etc.
6. Note extraordinary events and occurrences (ie. weather conditions, fire, maintenance, repairs, etc.)
7. Assess the existing coating, considering adherence to the structure, dry film thickness, the percentage of failure
8. PLAN THE NEXT STEPS

Keeping You in the Know Since 2002

USI Dates to Remember

November 8 & 9 - Appalachian Underground Corrosion Short Course (AUCSC) Planning Meeting (Pittsburgh, PA)

November 9 - Western PA, Corrosion Control Committee (WPACC) (Ann Arbor, MI)

November 17 - Ohio Gas Association (OGA) Tech Seminar Planning Meeting (Columbus, OH)

November 23/24 - Gobble! Thanksgiving (USI Warehouses closed for the holidays)

December 6 - Ohio Corrosion Committee (OCC) Meeting (Bellville, OH)

December 14 - AMPP Georgia Chapter - Vendor Spotlight Christmas Party (Decatur, GA)

WINTER GRADE



DENSO PROTAL 7125

Denso Protal 7125 is specifically formulated to be applied to colder substrates at colder ambient temperatures. It is a high build liquid coating that is brush or spray applied in one coat to many areas of in-service pipelines or during pipeline construction in the field. It cures fast, even down to -4°F (-20°C).

RESIMAC 104 METAL REPAIR FLUID XF

resimac Ltd.

A two component solvent free fast curing epoxy repair fluid. The product has been designed to be applied to surfaces where only manual or mechanical surface preparation can be performed and to surfaces contaminated with low viscosity oils and lubricants.

FEATURES

- Solvent free epoxy technology
- Brush or applicator tool applied
- Apply to manually prepared surfaces
- Apply to oil contaminated surfaces
- Fast cure – hard dry in 45 minutes
- Approved by NWEL for onsite transformer repairs

TYPICAL APPLICATIONS

- Leaking Pipe Joints
- Leaking Tank Seams
- Transformer Repairs
- Leaking Flange Fittings
- Anti slip coating for metal decks and stairs
- Resurfacing of corroded steel plates



<https://www.usigroups.com/product/resimac-resimetal-104-xf-metal-repair-fluid/>

The Resimetal 100 series products are capable of repairing a wide range of metal components. The full series is described in brief below, if you need more details please navigate to that product linked below.

Resimac Resimetal Metal Repair Product Range

- 101 Metal Repair Paste** – High build engineering grade repair paste
- 103 Metal Repair Stick** – Fast curing putty for emergency repairs
- 104 Metal Repair Fluid XF** – Fast curing fluid for application to oily surfaces
- 105 Aqua Stick Fast** – curing putty for underwater repairs
- 106 Metal Repair Paste XF** – Fast curing engineering grade repair paste
- 108 Pipe Repair Tape** – Rapid curing moisture activated repair bandage

NOW AVAILABLE PURCHASE ORDER (PO) for online orders

Call us at 248.735.7000 or email Customer Service at cs@usigroups.com to set up an online account.



Contact the USI team today! We have an Unconventional Solution for YOU!

The USI Team offers:

Technical Support • Training • Troubleshooting
HOTSHOT & Same Day Local Deliveries available for orders placed by 2 p.m. EASTERN TIME

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Fast, Friendly Service & Shipping

