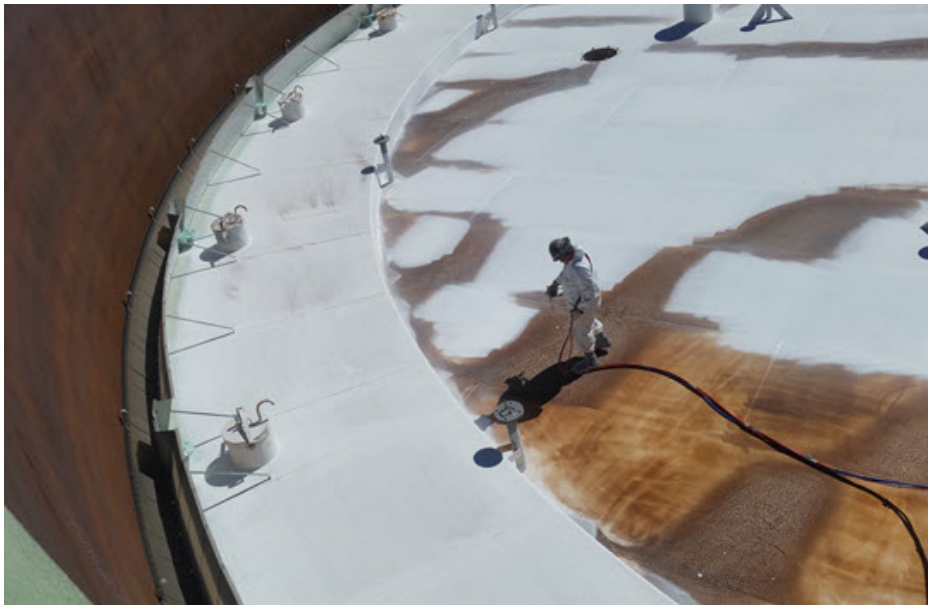
Fuel Marketer News

Supply, Marketing, Distribution, Transportation & Logistics News & Information

May 2016 Issue



Search

Latest News

OILCO Rounds Out the Production Line at 24”

Login

Submitted Content: Corrosion Protection with New Cost-Effective Coating

The annual cost of corrosion is over 3% of the world's GDP, representing $2.2 trillion in U.S. dollars, according to the World Corrosion Organization.

Economic sectors from petroleum, infrastructure, utilities, and transportation to production, manufacturing, and government are at risk of corrosion globally. The large amounts of carbon steel exposed to atmospheric conditions or harsh processes can be particularly susceptible.

At particular risk are a variety of industrial facilities with structures constructed of carbon steel including petroleum facilities, pipelines, and processing equipment. The challenge with carbon steel is that as soon as it is made it begins to corrode.

Because of the high cost of production downtime, repair, and replacement due to corrosion, a growing number of proactive companies are going beyond traditional techniques that have

Valero Energy Partners LP Announces Acquisition of McKee Terminal Services Business for $240...

Scully Announces New CEO and Management Team

OPW Engineered Systems Adds New Rack Monitor

Blackmer® Adds NPH And XH Series Sliding Vane Pump Models To Its

Featured Videos

companies are going beyond traditional techniques that have only slowed corrosion. They are turning to a new category of tough, Chemically Bonded Phosphate Ceramics (CBPCs) that can stop carbon steel corrosion, extend equipment life, and minimize the cost and production downtime required to recoat, repair, or replace equipment.

Stopping Corrosion, Minimizing Downtime

While many industries fight corrosion due to rain, humidity, or proximity to a marine environment, some companies must combat it in harsher conditions where caustic chemicals may be present.

Polymer paints and rubber type coatings have long been used as physical barriers to keep corrosion promoters such as water and oxygen away from steel substrates. This works until the paint is scratched, chipped, or breached and corrosion promoters enter the gap between the substrate and coating. Then the coating can act like a greenhouse – trapping water, oxygen and other corrosion promoters – which allows the corrosion to spread.

Often times the corrosion is not visible until the paint is flaked off if there is corrosion under the surface.

Product...

ValvTect Petroleum Acquires Energy Additives

Scully Announces a New Rack Control Systems Tester

Kinder Morgan and BP Form Joint Venture Limited Liability Company to Purchase U.S....

New Study of GHG Emissions from

Product Showcase

Piusi USA to Launch New Fuel Monitoring System

OPW Engineered Systems Adds New Rack Monitor

To control corrosion many petroleum companies are turning to EonCoat; a spray applied inorganic coating from the Raleigh, N.C. based company of the same name. EonCoat represents a new category of tough, Chemically Bonded Phosphate Ceramics (CBPCs) that can stop corrosion.

In contrast to traditional polymer coatings that sit on top of the substrate, the corrosion resistant coating bonds through a chemical reaction with the substrate, and slight surface oxidation actually improves the reaction. An alloy layer is formed. This makes it impossible for corrosion promoters like oxygen and humidity to get behind the coating the way they can with ordinary paints. The corrosion barrier is covered by a ceramic shell that resists corrosion, fire, water, abrasion, chemicals, and temperatures up to 400° F.

Although traditional polymer coatings mechanically bond to substrates that have been extensively prepared, if gouged, moisture and oxygen will migrate under the coating's film from all sides of the gouge.

By contrast, the same damage to the ceramic coated substrate will not spread corrosion because the carbon steel's surface is turned into an alloy of stable oxides. Once the steel's surface is stable (the way noble metals like gold and silver are stable) it will no longer react with the environment and corrode

Natural Gas-Powered Light Duty Vehicles

Valero Energy Partners LP Announces Acquisition of Corpus Christi Terminal Services Business

Renewable Energy Group Holds Ribbon Cutting for Grays Harbor, WA Biorefinery

CHS Now Sole Owner of McPherson, Kan., Refinery

Press Releases

Sponsored Content: The Fuel For Convenience Store Petroleum Marketing

PetroCapRE Acts as Exclusive Financial Advisor to PMG in Its Acquisition of 223...

will no longer react with the environment and corrode.

Visible in scanning electron microscope photography, EonCoat does not leave a gap between the steel and the coating because the bond is chemical rather than mechanical. Since there is no gap, even if moisture was to get through to the steel due to a gouge, there is nowhere for the moisture to travel. The only spot that can corrode is the scribe line itself, which eliminates the possibility of the corrosion migrating.

Unlike traditional methods, the corrosion resistant coatings for mild steel have a double layer of protection. The tough, outside ceramic coating will not chip like paint and takes sandblasting to remove. The chemically bonded layer stops corrosion and will not allow corrosion promoters to spread.

For petroleum facilities looking to reduce costs, there are additional advantages to CBPC coatings beyond corrosion resistance. This includes quick return to service that minimizes facility downtime, as well as no VOCs or HAPs, and a flame spread rating of zero which improves safety.

For corrosion protection projects using typical polymer paints such as polyurethanes or epoxies, the cure time may be days or weeks before the next coat of traditional 'three part systems' can be applied, depending on the product. The cure time is necessary to allow each coat to achieve its full properties, even

Clean Energy to Build New CNG Stations for Multiple Transit Agencies and Large...

Afton Chemical Reinforces Commitment to Responsible Care with New Certification

ATEK Access Technologies Offers TankScan Data Delivered Guarantee

Steel Plate Institute-Steel Plate Fabricators Association

though it may feel dry to the touch.

In contrast, a corrosion resistant coating for carbon steel utilizing the ceramic coating in a single coat requires almost no curing time. Return to service can be achieved in as little as one hour. This kind of speed in getting a facility producing again can potentially save hundreds of thousands of dollars per day in reduced downtime, for instance, in petroleum applications.

EonCoat consists of two non-hazardous components that do not interact until applied by a plural spray system like those commonly used to apply polyurethane foam or polyurea coatings. Since the coating is inorganic, there are no VOCs, no HAPs and no odor. This means that the coating can be applied safely, even in confined spaces.

Since EonCoat has no VOCs, HAPs or odor, it can be sprayed during work hours, so a facility can stay in full production in adjacent areas while the coating is being applied. For any plant, facility, or structure with corrosion issues, it is well worth considering.

For more info, call 754-222-4919; Fax 720-834-7424; visit www.eoncoat.com; or write to EonCoat, LLC at 551 Pylon Drive,

2015 Board of Directors

KROHNE Highlights Microwave Level Measurement Devices at ILTA

ArcLight Capital Partners Announces Acquisition Of Pennsylvania Refined Products Terminal Network

OPW Engineered Systems Bolsters Its Terminal Solutions

All That Snow in the

Unit D, Raleigh, NC 27606.

Share this post

Northeast...

About Us

Fuel Marketer News (fuelmarketernews.com) is the downstream petroleum industry's established and growing information source for fuels-related news and education. Encompassing a content rich online web magazine, weekly e-newsletter, vendor marketplace and event-focused print

Calendar of Events

Fuel Marketer News Magazine

Subscribe To Our Weekly Newsletter

Email Address: *

First Name: *

Last Name: *

Title: *