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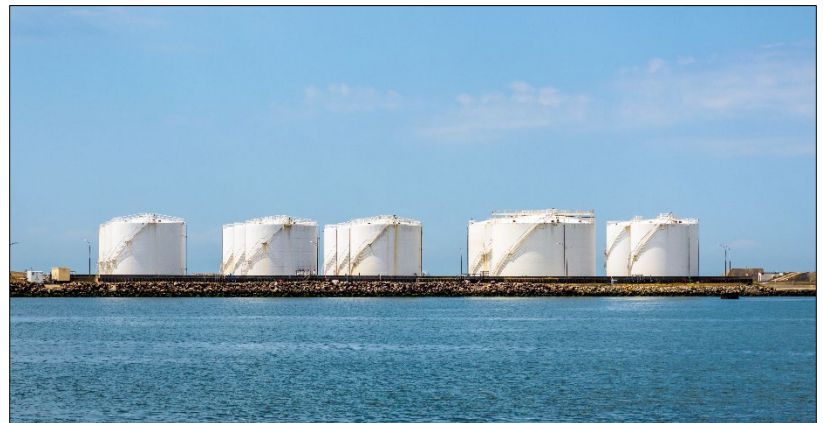


Attention: Editor
July 13, 2023
PRESS RELEASE



Take the Next Logical Step: Tank Bottom Protection at Any Stage of Service Life

Thousands of aboveground storage tanks (ASTs) around the world face the challenge of achieving safety and longevity. Not least among concerns is the corrosion that attacks hidden tank bottoms and can lead to costly repairs or dangerous leaks. While the characteristics of these environments make corrosion protection difficult, the nature of



[CorroLogic® VpCI® Technology](#) makes it a formidable opponent and logical solution to soil-side corrosion.

Why Is AST Protection Needed?

The cost of building, maintaining, and repairing an AST can be astronomical—not to mention the value of the hundreds or thousands of gallons of liquid stored inside. Yet many of these ASTs are located in extremely harsh

conditions such as the Middle East where high temperatures, humidity, coastal salt air, and sabkha soil (high mineral content) surround tanks with a medley of corrosion threats. A further problem is that cathodic protection (CP), often the go-to for AST bottom protection, can only protect areas of the tank bottom in direct contact with the CP tank pad. Any dips, bumps, or other irregularities in the less-than-perfectly-smooth tank bottom will be out of contact with the CP and therefore unprotected. Corrosion on these bottoms can be catastrophic, ranging from minor leaks to widespread pollution or even explosions. In addition to physical dangers, loss of stored resources or the tanks themselves can be a huge cost.



The Logic of Vapor Phase Protection

CorroLogic® VpCI® for ASTs has been a rising technology since the 1990s. The key to its flexibility and effectiveness is the behavior of Vapor phase Corrosion Inhibitors (VCI/VpCI®), which can be applied in multiple forms (e.g., powder and slurry) and are ideal for enclosed spaces. Once beneath the tank floor, they diffuse throughout the void space and are attracted to metal surfaces where they form a protective

molecular layer. This offers protection even in hard-to-reach pockets formed by tank bottom irregularities that may keep the metal out of contact with the CP current.

Keep Tanks In-Service

Another huge advantage of CorroLogic® is that it can be applied underneath the tank bottom at any stage in the AST service life. Applying it to new tanks is naturally the best option because it will be easier to access the interstitial space; plus, it is more beneficial to inhibit corrosion before it has a chance to start. However, [CorroLogic® Powder](#) and [CorroLogic® Slurry](#) can be injected under the tank bottom and



allowed to diffuse throughout the interstitial space even after the AST has been filled. The tank does not have to be emptied, let alone disassembled, in order to protect it. This provides a major cost savings and recourse, for example, if the CP system needs to be replaced but retrofitting is too expensive.



An Industry Standard

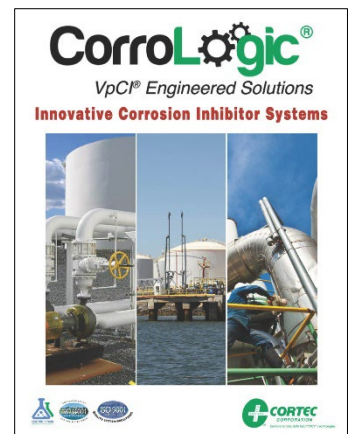
Given the benefits and effectiveness of CorroLogic[®], it is not surprising that using VCIs to protect ASTs has become an industry standard. This fact is evidenced by the publication of [API Technical Report 655](#), “Vapor Corrosion Inhibitors for Storage Tanks” in 2021. This report serves as a guide for tank owners and operators protecting their ASTs with

amine-carboxylate VCIs, the same class of VCIs found in CorroLogic[®] Powder and CorroLogic[®] Slurry. As time goes on, more research is becoming available, with promising results on the benefits of CorroLogic[®] and its compatibility with CP. For example, an [article in Chemical Engineering](#) shares results from the Cushing Terminal tank project, which found far fewer corrosion indications during the period of treatment with both CorroLogic[®] and CP in contrast to the previous three years of CP-only protection. Most recently, [AMPP SP21474-2023](#) has been released on “External Corrosion Control of On-Grade Carbon Steel Storage Tank Bottoms,” with a section covering use of VCIs.

Take the Next Logical Step

While many tank owners are familiar with CP and will continue to use it, applying CorroLogic[®] as a complementary form of protection at any stage in a tank’s service life makes a lot of sense. If you have come to the logical conclusion of using CorroLogic[®], [contact Cortec[®] to get further support on AST bottom protection](#).

Keywords: tank bottom protection, AST corrosion, corrosion protection, CorroLogic, AST protection, cathodic protection, alternatives to CP, API technical report, Cortec, soil-side corrosion



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