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Investing Wisely

Even as the global economy shows signs of emerging from a long recession, the struggle to contain costs at every level continues. As a major supplier to a variety of industries, ZRC Worldwide has had a unique perspective on the fluctuations of the marketplace.

One thing is clear: professionals in all industries are focusing on getting more out of their people, equipment and facilities. While budgets for the acquisition of new or replacement equipment are still scarce, we are finding that many companies are investing in maintenance projects that will extend the useful life of equipment and facilities already in place. This approach is sure to pay off in cost savings down the road.

Matthew Steele, President

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Corrosion: The U.S. Military's \$20 Billion Problem

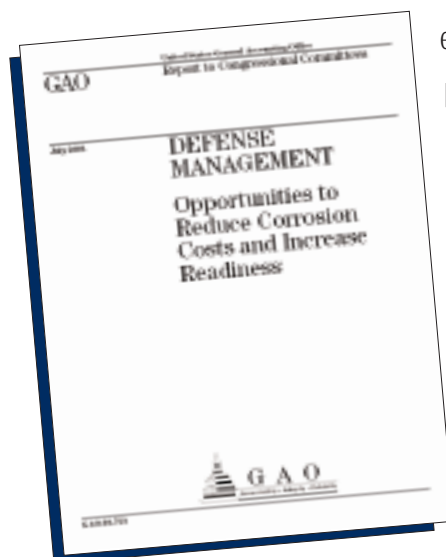
A recent report published by the U.S. Government's General Accounting Office (GAO) paints a harsh picture of the readiness of much of the nation's military equipment. According to the report (GAO-03-753), the military's tanks, aircraft, vehicles, ships, buildings and components suffer from a corrosion problem that is costing the government as much as \$20 billion per year.



The report states, "in 2001, a 2-year, government-sponsored study estimated the direct costs of corrosion for military systems and infrastructure at approximately \$20 billion annually and found corrosion to be one of the largest components of life-cycle costs for military weapon systems." It goes on to criticize the military for not implementing corrosion prevention measures that could extend equipment life, raise readiness status and even save lives.

The news is not all bad. The GAO report cites several areas in which the military branches, "plan to use composite materials and advanced protective coatings to increase corrosion resistance. The military services estimate that as much as 25 to 35 percent of corrosion costs can be eliminated by using these and other corrosion prevention efforts, which would amount to billions of dollars in potential savings each year."

ZRC is currently working with the U.S. Government to develop corrosion prevention specifications and the use of zinc rich cold galvanizing compound in various applications.



ZRC to Preserve Historic Naval Vessels



An important part of our nation's maritime history will be preserved for future generations, thanks in part to the protection of ZRC Cold Galvanizing Compound. ZRC is being used as a corrosion prevention coating during the restoration of the U.S.S. Lionfish, a retired World War II era diesel submarine which is now part of the Battleship Cove marine history park in Fall River, Massachusetts.

The park also includes the battleship U.S.S. Massachusetts, the destroyer U.S.S. Joseph P.

Kennedy, two PT boats, a Cold War-era Russian missile patrol boat, a World War II landing craft and military aircraft. Most of the naval vessels are on display in the water - a severe test for aging steel plates and fittings.

ZRC is being used extensively in a current maintenance cycle on the Lionfish's conning tower. The sleek submarine sits low in the salt water of Battleship Cove, continually exposed to the elements and rugged New England weather. ZRC's protection is expected to add many years to the boat's life, as well as lengthening the required maintenance cycle, an important consideration for the non-profit Battleship Cove.

Marine applications are nothing new for ZRC, which has long been favored in maritime and coastal regions for its unparalleled ability to protect steel against rust and rust creepage, even under the harshest conditions.

Curators at the marine park are planning to employ ZRC in other applications on the remaining naval vessels on display and open to the public.



INFORMATION STATION

QI would like to start using a water-based galvanizing zinc compound like ZRC's "ZERO-VOC" product. But I am worried about not having a very long pot life. I want to be able to get more than a few hours work out of an open container.

A Do I have good news for you! Although we are still completing all of our tests as this newsletter goes to press, I can report that we have achieved astonishing results in testing the pot life of our ZERO-VOC compound.

First, keep in mind that ANY compound is going to have a limited life once it is mixed and exposed to the air. Typically, inorganic zinc compounds will give you about 8-12 hours of use before developing a surface film. This requires careful planning and mixing to make sure you have enough compound to do the job, but not so much that you waste material.

That said, initial lab tests have indicated that our ZERO-VOC galvanizing compound may have achieved a pot life of more than 20 days. Yes, 20 DAYS! That means you may be able to mix ZERO-VOC ZRC today and continue to use it for almost three weeks.

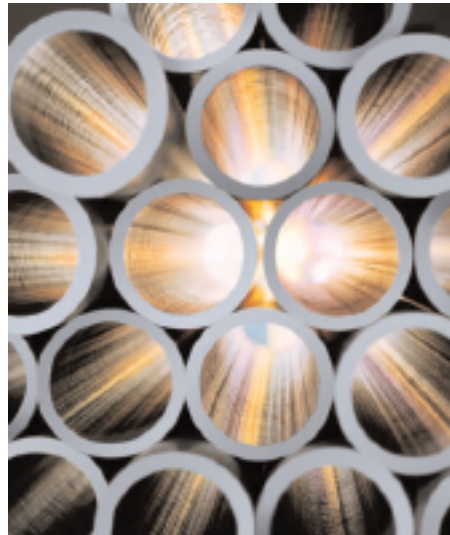
Naturally, "your mileage may vary." Stay tuned for the final test results. We are quite confident at this point to say that our ZERO-VOC compound will give you an extended pot life that far exceeds inorganic zinc compounds.

Send your technical questions to:
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Fax to: (781) 319-0404, or e-mail Steve at:
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ZERO-VOC ZRC in the Field

When we introduced ZERO-VOC, the latest variant of our successful zinc rich galvanizing compound last year, we expected it to fill a niche market in states where clean air laws were particularly stringent, or where the original ZRC compound was impractical. However, we have been pleasantly surprised by the wide acceptance of ZERO-VOC ZRC in a number of unexpected applications.



For many users, the idea of having a galvanizing compound available for field application without worrying about VOC release was a breakthrough. No more paperwork, no worries about using solvents in closed spaces, no worries about the environment. But others have discovered that ZERO-VOC ZRC delivers additional benefits, including simpler preparation and ease of use.

Here are three examples of how customers are putting ZERO-VOC ZRC to work . . .

- A pipe fabrication company uses ZERO-VOC ZRC for its high heat resistance for cut ends on pipes going into steam systems and for touching up hot-dip galvanizing.
- A manufacturer of cleaning equipment for utility companies and pulp & paper mills - both very dirty and hot environments - uses ZERO-VOC ZRC on their equipment to prevent degradation.
- Federal and state prisons are using ZERO-VOC ZRC in their shops to avoid solvent fumes.
- Because of its high heat resistance, ZERO-VOC ZRC has been specified by the Long Island Railroad for touch-up welds on exhaust systems on locomotives.
- A manufacturer of vehicle undercarriages likes ZERO-VOC ZRC's impact resistance - along with the fact that ZERO-VOC ZRC exceeds California's strict environmental requirements.

How can we help put ZERO-VOC ZRC to work for you?





"Pray not for lighter burdens, but for stronger backs."

Theodore
Roosevelt

New Representative in Mid-Atlantic

M&S Associates of Silver Spring, MD has been named as ZRC Worldwide's newest representative in the Mid-Atlantic region. M&S Associates' Mike Ukaly will represent ZRC in Maryland, Virginia, Delaware and southeastern Pennsylvania.

Mike is a graduate of James Madison University with more than twenty years of experience in technical product sales in the plastics and coatings markets. He founded M&S Associates in 1996 as a sales organization for technical coatings.

We welcome Mike Ukaly to the ZRC Worldwide team, and invite our customers in the Mid-Atlantic region to contact Mike for all their corrosion prevention needs.

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