




MISSISSIPPI DEPARTMENT OF TRANSPORTATION BILOXI BRIDGE – UNITED STATES OF AMERICA

In **November 2002** the steel parts of the Back Bay Bascule Bridge over the Mississippi in Biloxi, were coated with ZINGA.

For the refurbishment of the Bascul Bay Bridge in Biloxi, the Mississippi Department of Transportation (MDOT) has chosen for ZINGA, taking into account the corrosion control research of the US Army.



Biloxi, Back Bay Bascule Bridge (MDOT US 1-110)



Corrosion Prevention & Control Update

A Bulletin Dedicated to the
Establishment and Operation of an Aggressive Corrosion Prevention Control Program

In 1995, Battelle Corporation scientists updated a joint Battelle - National Institute of Standards 1978 report entitled "Economic Effects of Metallic Corrosion in the United States". In that update, it was estimated that corrosion of metal costs the United States economy almost \$300 billion per year. It was also suggested that one-third of these costs could be reduced by broader application of corrosion resistant materials and the application of best corrosion-related technical practices. The bottom line conclusion based on the current contract efforts and a decade of corrosion specific research and testing, is that the United States Army can save over 30% of its current corrosion related annual costs. This can be accomplished through continued aggressive implementation of recently adopted Army Material Commands (AMC) corrosion prevention control practices and application of commercially available corrosion protection technologies.

Extracted from the Fielded Fleet Corrosion Control Program Report, 1997

The purpose of the Corrosion Prevention & Control Update is to make important product information available to you about the approved

commercial sources referred to in the referenced study. The data provides information about commercial vendors, which are approved and available for providing information and products. The vendor information, here in, is provided in alphabetical order, with no preference given or inferred. Each company participated in the Fielded Fleet Corrosion Control Program and was chosen as an approved vendor for corrosion products and applications.

Commercial Vendor List

- **Carwell Products Inc.**
275 cooper Avenue, Suite 105
Tonawanda, NY 14150
(716) 877-2363 or 1-800-856-6798
Fax: (716) 877-2364
POC: Barry O'Halloram/ Bill Balcom
Bill@carwell.com
- **Sulzer Metco**
1101 Prospect Avenue
Westbury, NY 11590-0201
(516) 338-2303
Fax: (516) 338-2134
POC: Peter Foy/Patty Cook
- **Tafa - Midwest Thermal Spray**
2013 Marie Street
Westland, MI 48185
(313) 729-2990
Fax: (313) 729-2992
POC: Thomas Gross/Michael Poe

... List Continued

Zingametall
Industriepark VENECO
Zandstraet, Belgium
385.68.81
Tel: 09 385.58.69
Fax: Piet Van Riet

Products/Applications
Zingametall Products, Inc.
Inhibitor Spray (NSN 389-1413) - This product is approved for the inside of and wheel wells of trucks. This product does not reduce infrared reflectance. Product performance was improved 30% in corrosion resistance. Additionally, the corrosion of corroded hinges and other moving parts was restored to original condition with this product.

approved for use on the exterior of vehicles.

Zingametall
Zinc Rich Coating - The performance of this zinc rich coating also proved to be well above the 30% improvement in corrosion protection. This product has been approved for use on the exterior of vehicles.

Points of Contact

United States

Mr. Donald Tapscott
Materials Modification Inc
2929 Eskridge Road
Eskridge Centre, Merrifield
Laboratory/Suite P1
Fairfax VA 22031
(703) 560-1370 Ext. 12
Fax: (703) 560-1372

IMMC

Ms. Mary Graenowicz or Mr. Gene Teufel
USATACOM
ATTN: AMSTA-IM-HHH
Warren, MI 48397-5000
(810) 374-8496/8900
DSN 786-8496/8900
Fax: (810) 574-7510

Spray System, Arc - The performance of this product proved to be well above 30% improvement in corrosion resistance. This product has been approved for use on the exterior of vehicles.

The "Corrosion Prevention and Control Update", issued in 1997, describes the US Army research to reduce the costs spent on anti-corrosion protection, with 30%. Included is a list of approved vendors, amongst which Zingametall. This approval is based on the tests that are performed by the US Army Tank Automotive Command (TACOM) in Hawaii in 1995. ZINGA has been selected from a large range of anti-corrosion protection products, together with only a few other products (no direct competitors).



NEWS RELEASE

SOUTH MISSISSIPPI CONGRESSMAN
Gene Taylor
5th Congressional District

Press Contact: Amy P. Gregory • 601-864-7670 • FAX: 601-864-3099
 2424 14th Street, Gulfport, MS 39501

For Immediate Release

Thursday, Dec. 23, 1999

Taylor announces \$500,000 award for I-110 bridge

U.S. Rep. Gene Taylor announced today that the U.S. Department of Transportation (DOT) has approved \$500,000 for a recoating project for the I-110 bridge at d'Iberville. The Mississippi Department of Transportation (MDOT) had requested federal funds for the testing and evaluation of a system for recoating steel bridges.

Taylor said, "This could be an important step in reducing the costs and maintenance associated with repainting bridges with a steel superstructure. The d'Iberville bridge on I-110 is a 500 foot bascule bridge. The steel is currently protected with a coating, but repainting is necessary."

MDOT wants to reduce costs by using a system of surface preparation and recoating developed by Total Rust and Corrosion, Inc. The TBI system includes a zinc rich coating called "Zinga." The system was originally developed for use in the naval and maritime industry.

Taylor said the project will result in bridges with significantly lower rehabilitation costs and will add to the expected life of bridges. He added, "It is important that this recoating process will also have less impact on our environment."

The DOT agency approving the project is the Federal Highway Administration.

In the press release dated **23/12/99**, congressman Gene Taylor announced the **recoating of the bridge with ZINGA**. This bascule bridge is the first of all bridges over the Mississippi that will be coated with ZINGA: the start of an enormous project in the USA!



Before application



The application has successfully been done **in November 2002** in presence of Zingametall and the controlling organism SGS Axa-Med.

System:
 ZINGA 2 x 75 µm
 (or 2 x 3 mills)





Below you can read the CAB report that was carried out on **15th November 2007**.



COATING ADVIESBUREAU BVBA
Coating Consulting Office
'T HOGE 11, B - 8200 BRUGGE (BELGIUM)

ASSESSMENT REPORT

SUBJECT : Back Bay Bridge - Assessment
SITE : Back Bay Bridge Biloxi,
Louisiana, USA

INSPECTION DATE : 5/11/2007

1. SPECIFICATIONS

1.1. Object description

Back Bay Bridge – Northern approach (section 4) of the I-110 bridge in Biloxi, MS.
Estimated surface coated: 25.000 ft² (2.322,98m²)

1.2. System specifications

Surface preparation :	Shop : Yard : SSPC – Roughness : Rz 2 to 3 mil
------------------------------	---

DFT limits :

80/20 rule : Min. 80 % of the values must be higher than the minimum DFT
Measurements lower than the absolute minimum DFT are not accepted.
Absolute minimum DFT = 0,8 x minimum DFT.



3. CONCLUSIONwww.zinga.be

The coating works executed on the Biloxi bridge in 2002 remain in a very good condition.

So far no beginning of corrosion was stated.

No accumulation of zinc salts was seen and the surfaces were equally dull grey.

Pigeons are living on the bridge parts but no destructive influence was stated due to this aggression.

Below you can see pictures taken during the inspection on the 15th November 2007.

