

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-002296**Date Inspected:** 06-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Changxing Dao, Shanghai**Quality Control Contact:** William (Bill) Oak**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coating Inspection**Bridge No:** 34-0006**Component:** Lift 1 East, Lift 1 West, Lift 3 East, Lift 4 West**Bid Item:** 77, 78, 79**Lot No:** B265**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

Office  
Attend to report writing and project documentation. Respond to emails from Caltrans Engineer Bill Howe.

Lift 2 East

External East Side of the Top Plate was contaminated with overspray from application of Finish Coat of Interfine 979 on the East Side Plate and "F" Side Plate areas. ZPMC personnel failed to protect the Faying surfaces from overspray damages completely. Also ZPMC torch cutting the Drip Rail from the bottom edge of the "F" Side Plate after Top coat applied on 12-04-2009. Work currently being performed by ZPMC on the West Side Plate and Lamp Bracket as well as the FL-3 Beams and "F" side Plate cleaning and application of Interzinc 52 undercoat on NDT repair areas.

Cross Beam #2

Repair area on the Top to Side and Bottom to Side Plates Weld Seam /NDT repairs areas were cleaned in accordance with the agreed upon method of ABF and Caltrans and Interzinc 22 was applied. Also internal repairs were touched up with Interzinc 52 in localized areas aboard ship #17.

Cross Beams #1 & #3

The Top Plate and Bottom Plate to Side Plate weld seam /NDT repair areas previously undercoated with Interzinc 52 was Top Coated with Interfine 979 Finish coating aboard Ship #17.

Lift 4 East

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External NDT repair areas along the "F" Side Plate to Top Deck Plate weld seam were Top coated with Interfine 979. The entire "F" Side Plate was full coated with Interfine 979 to ensure a more uniform finish as the entire surface had the finish coating applied by roller method. Internal NDT repair areas were also prepared to the agreed upon methods and Interzinc 52 undercoat was applied to the affected areas.

### Lift 4 West

Internal surfaces of localized damaged areas were touched up and Interzinc 52 undercoat applied.

### Lift 3 East

External NDT repair areas along the "F" Side Plate to Top Deck Plate weld seam were Top coated with Interfine 979. The entire "F" Side Plate was full coated with Interfine 979 to ensure a more uniform finish as the entire surface had the finish coating applied by roller method.

### Lift 3 West

External NDT repair areas along the "F" Side Plate to Top Deck Plate weld seam were Top coated with Interfine 979. The entire "F" Side Plate was full coated with Interfine 979 to ensure a more uniform finish as the entire surface had the finish coating applied by roller method.

### Lift 2 East

External Bottom Plate surfaces were cleaned in accordance with SSPC SP-1 in preparation of Finish coat application. Surfaces were in general compliance with the contract documents and Interfine 979 was applied to previously "Mist" coated areas of the Cross Beam Bottom Plate as well beneath the FL-3 Beams.

### Lift 1 West

Panel Point # 11-13 on the Bottom Plate internal and Stiffeners were re-abrasive blasted to affect repairs to damaged previously applied undercoating and remove "Rust Stain" from undercoated surfaces. Also the areas of the Side Plates at the end of 1AW/1AAW end boxed areas were non-compliant with SSSPC SP-10 as rust was visible after abrasive blasting operations. Also the backsides of the Lateral Stiffeners below the Top Deck Plate were installed prior to abrasive blasting and now exhibit rust and also the access is now limited to zero for proper surface preparation.

### Lift 1 East

Lift currently inside Blast Shop #4 and Inspection was requested and upon arrival the work still had not been completed on the internal surfaces to be repaired. Caltrans QA Lumley onsite inside the segment and abrasive blasting was actively in process. Areas which could be viewed inside Segment 1AE were in general compliance with SSPC SP-10, however the Bottom Plate was covered in spent abrasive media and could not be viewed at the time of requested inspection.

Note: All inspections were performed jointly with ABF & ZPMC QA/QC representatives and Caltrans QA Lumley when achievable. International Protective Coatings technical service representative were available for inspections and consultation.

### **Summary of Conversations:**

No relevant conversations on this date.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (858) 699-9549, who represents the Office of Structural Materials for your project.

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**Inspected By:** Lumley,James

Quality Assurance Inspector

**Reviewed By:** Peterson,Art

QA Reviewer