

**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-001273**Date Inspected:** 15-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2030**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:** Coatings Inspection**Bridge No:** 34-0006**Component:** Lift 4 East, OBG 6BE, OBG 2AW, Cross Beam**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:

**Lift 4 East**

Visual inspection performed with ABF Bill Oak on internal surfaces. FL-2 beams have no access for inspection as ZPMC removed all scaffolding from interior, over blast damages viewed on "U" rib stiffeners, touch up and holiday repairs are incomplete, CWR repairs require NDT on Panel Points 26, 27 & 28, surfaces not cleaned of debris dirt and materials. ZPMC requested "Final" inspection prior to transport to ship.

**Miscellaneous Metal**

Base metal surfaces of 200 pieces of splice plates and tower brackets were abrasive blasted to an SSPC SP-10 condition and Interzinc 22 applied. Profile amplitude was 76-79um.

**Office**

Review and sign project documentation in ABF satellite office adjacent to Blast shop 1.

**Lift 3 East**

Repairs consisting of re-abrasive blasting to base metal and an SSPC SP-10 condition and re-application of Interzinc 22 to FL-2 Beams and "U" rib stiffeners at Panel Points # 21 & 22. Inspected panel Points 23 & 24 while there and noted holidays and dry-spray visible as well as visible rust on edges of "T" stiffeners.

**Lift 4 East**

Joint visual inspection with ABF Bill Oak of external top coated surfaces with interfine 979 revealed agglomerations, orange peel, blemishes and discontinuities in Top-coated surfaces. Random dry film thickness

---

---

# SOURCE INSPECTION REPORT

( Continued Page 2 of 2 )

---

---

readings were observed in excess of 500-600 microns and a general non-uniform appearance from differing gloss levels, as well as pinholes and rust staining.

OBG 6BE

Follow-up inspection on external surfaces blasted and coated with Interzinc 22 revealed dry-spray and overspray on surfaces as well as holidays and visible base metal near segment pedestal support areas.

OBG 2AW

Repairs of the Counterweight attachment area consisted of re-abrasive blasting to base metal and an SSPC SP-10 condition and re-application of Interzinc 22 to faying surfaces of bolted connections.

Cross Beam #3

ZPMC requested inspection of external surfaces for re-application of Interfine 979 top-coat and repairs to coating applied on 08-13-09, surface preparation was rejected by ABF QA as cleanliness of surfaces to be coated were dirty.

Lift 3 East

Cross beam bottom plate were prepared in accordance with SSPC SP-2 an Interzinc 52 applied with brushes.

Lift 4 East

Internal surfaces were repaired from Panel Points #24-28 by re-abrasive blasting to base metal and an SSPC SP-10 condition and re-application of Interzinc 22 to surfaces as directed and identified by ZPMC QC personnel. Profile amplitude was 78, 80, 80 respectively on three (3) random locations. Top plate surfaces were viewed and discovered to have over-blast damages which perforated existing Interzinc 22 coated surfaces and repairs are required.

Note: Catwalk platform installed at Panel Point # 26-27 obstructing repairs and visual inspection of floor area and "T" stiffeners.

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

Note:

Lift 4 east internal blasting. ABF QA arrived after Caltrans QA performed inspection and informed Caltrans QA that no Notice of Inspection had been submitted to ABF for blasting and coating operations on Lift 4 East.

Caltrans QA observed blasting operations ongoing during course of other inspections in Trial Assembly area and stayed late to ensure compliance.

## Summary of Conversations:

No relevant conversations on this day.

## 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.

---

<b>Inspected By:</b>	Lumley,James	Quality Assurance Inspector
----------------------	--------------	-----------------------------

---

<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer
---------------------	----------------	-------------