

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-001212**Date Inspected:** 22-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2000**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:** Office, OBG 6CE, Sub-Assemblies, OBG 7A**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 project files and documentation.

OBG 6AE

External Dry Film Thickness (DFT) check was performed jointly with ZPMC and ABF QA/QC personnel.

Inspection revealed that surfaces adjacent to the FL-3 Beam along the Side Plate were excessive in DFT range and mud-cracking was observed by Caltrans QA Lumley and pointed out to ABF Bill Oak who was in attendance.

ZPMC QC Dong Yao Fei was informed and stated ZPMC would re-blast the affected area during anticipated repairs during trial assembly operations. The location was marked out and mapped accordingly.

OBG 7AE

Pre-blast inspection was requested by ZPMC and Caltrans QA Hiranah Patel performed VT inspection of subsequent base metal.

Tower Sub-Assemblies

Base Metal surfaces of approximately 123 Tower Grid Brackets and Channel Iron were de-greased in accordance with SSPC SP-1 in preparation of abrasive blasting.

OBG Sub-Assemblies

Base Metal Faying surfaces of Floor Beams, FB3004-001, FB3035-001, FB3060-001 were abrasive blasted to an SSPC SP-10 condition and Interzinc 22 applied.

SOURCE INSPECTION REPORT

(Continued Page 2 of 2)

OBG 6CE

Internal Base Metal surfaces from Panel Point 44-45 Floor areas of Side Plates and Bottom Plate “T” Stiffeners were abrasive blasted for VT inspection and fabrication repairs. Grinding work followed to amend surface irregularities and defects.

OBG 7AE

Base Metal surfaces of the External End Diaphragm and floor beams were inspected for compliance with SSPC SP-10. Surfaces exhibited visible rust inside the Upper “U” rib stiffeners and the work was rejected by Caltrans QA Lumley, ABF Bill Oak performed a follow-up inspection and determined the same condition existed. Work was rejected due to non-compliance with SSPC SP-10.

OBG 6BW

Chloride testing MEK testing and Pencil Hardness testing was performed on Undercoated surfaces prior to application of Interfine979 “Mist” coating. All testing confirmed sufficient cure of undercoat. During the course of the inspection ZPMC personnel relocated access scaffold and damaged the undercoating thus exposing base metal surfaces. ZPMC masked the area with tape for future repairs, and “Mist” coat was applied.

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:

Caltrans QA Lumley informed by ABF Bill Oak no further inspection would be performed by ABF if ZPMC transported components to the transport ship prior to completion.

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) 699-7549, who represents the Office of Structural Materials for your project.

Inspected By:	Lumley,James	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
