DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.15

SOURCE INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: SIR-002269
Date Inspected: 08-Apr-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Changxing Dao, Shangha

Quality Control Contact: Don Walton
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
Bid Item: 77, 78, 79
Component: Office, Sitewalk, Sub-Assemblies, OBG 7DE,
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:

OBG 9BE

External Base metal surfaces were abrasive blasted to perform VT inspection of welds and base metal. Caltrans QA Larry Viars and Tim McClendon performed VT inspection and mapped accordingly, subsequent grinding operations were performed by ZPMC personnel to amend sharp edges and gouges and associated base metal defects followed by re-abrasive blasting to an SSPC SP-10 condition and Interzinc 22 undercoat applied. Profile amplitude was 69-84µm and chloride values were 10,30, and 50µs/cm respectively. Note Chloride values were obtained during VT blast. A total of 3 inspections took place prior to achieving SSPC SP-10 condition and application of undercoat.

Lift 7 East

The external end weld seam at Panel Point #49, weld seam joining OBG 7AE/7BE and the end weld seam at OBG 7AE and Edge Plate/Deck Plate weld seams were abrasive blasted to base metal and an SSPC SP-10 condition to repair damaged/burned previously applied coating and damages from NDT operations and Interzinc 22 re-applied to amend repairs. Profile amplitude was 56-80µm.

OBG 9BW

ZPMC requested a visual and Dry Film Thickness (DFT) verification of the internal and external undercoated surfaces prior to application of Interfine 979 “mist” coating on the external. Subsequent inspection revealed that the external surfaces were in process of repairs and coating application ongoing, the internal surfaces exhibited

Low and High DFT readings and widespread over-blast damages which required repairs. ZPMC to resubmit notification for inspection upon completion of repair work for re-inspection and verification.

Sub-Assemblies

OBG 7DE Cross Beam Bottom Plate of FL-3/Cross Beam Termination undercoated external surfaces were tested prior to application of Interfine 979 “Mist” coat. MEK testing was observed at grade 5 condition and chloride values were 10µs/cm and DFT readings were in general compliance with the contract documents and subsequent “Mist” coat was applied.

Sitewalk

Performed a site walk with ASMR Skyler Guest and checked spare tower struts and associated components for Towers also checked “Mock-up” of Floor Beam Diaphragms inside Fabrication workshop #13 for OBG 13, and Galvanizing Facility on ZPMC grounds, visually viewed the access perforation partially cut-out of the Upper Corner Unit Sub-Assembly in the Top Plate outside the Blasting workshop.

Sub-Assemblies

Base metal surfaces of approximately 280 various Splice Plates and 183 Shim Plates were washed and de-greased in accordance with SSPC SP-1 in preparation of abrasive blasting. Also 200 Cable Tray Sub-Components were incorporated into this lot and washed and de-greased as well. Approximately 50+- Splice Plates were returned from Trial Assembly area for repairs to previously applied undercoat, repairs consisted of complete removal of applied undercoating re-abrasive blasting to an SSPC SP-10 condition and re-application of Interzinc 22 undercoat.

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 discussed coatings related issues with ASMR Skyler Guest during sitewalk of facilities currently approved for use for SAS Bridge components being coated at the ZPMC facility.

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.

Inspected By:	Lumley,James	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer