

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-002395**Date Inspected:** 20-Mar-2010**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:** 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**Component:** Office, Lift 5 West, Lift 6 West, Lift 6 East, S**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:

ABF Satellite Office

Review and sign backlog of reports and Notifications of Inspection.

Sub-Assemblies

Counterweights CW40 & CW42 which the previous day had been deemed in general compliance with the contract documents by Caltrans Engineers Bill Howe and Aaron Prchlik of the Finish coated surfaces had now been rejected by ABF QA Manager Don Walton as ZPMC personnel had performed welding and installation of splice brackets upon the top section Finish coated surfaces to complete required fabrication of these components.

Caltrans QA Lumley performed follow up and photo-documented damages and informed Caltrans Engineers.

Lift 5 West

ZPMC requested a "Final" inspection of undercoated internal surfaces from Panel Points 29-36 of the Side Plates and Bottom Plate "T" stiffeners and Upper Corner Unit assemblies. Undercoated surfaces were still incomplete for touch up and repairs and also surfaces were still not cleaned to permit visual inspection of undercoat completely as dirt, dust and spent abrasives were still present on the undercoated surfaces. This was the fifth or sixth inspection performed within the Lift and the surfaces were still non compliant with the contract documents.

Lift 6 West

Internal previously undercoated surfaces were re-abrasive blasted to remove rust stained areas of undercoat and visible rust from base metal surfaces from damages from trial assembly operations and incomplete fabrication and

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welding. Previously coated surfaces were abrasive blasted to base metal and an SSPC SP-10 condition and Interzinc 22 undercoat re-applied from Panel Points 46-47 including the end weld seam on the Bottom and Side Plates and "T" Stiffeners.

Lift 6 East

ZPMC personnel masked off the Bottom Plate Stillage support areas which required abrasive blasting and application of Interzinc 22 undercoat prior to application of Finish coat 979 on the entire surface area of the Bottom Plate. ZPMC masked the entire perimeter of the Bottom Plate to prevent over-spray from damaging/marring the previously applied finish coating on the East and West Side Plates and applied Finish coat of Interfine 979.

Sub-Assemblies

Testing of undercoated surfaces on 10- Suspender Brackets Coded: SB42W, SB44W, SB46W, SB40E, SB46E, SB36W, SB38W, SB40W, SB36E, SB44E. Testing performed consisted of MEK, Pencil Hardness, DFT verification, and Chloride testing prior to application of Interfine 979 "Mist" coat. All testing was in compliance with the contract documents and subsequent cleaning performed in preparation of Interfine 979 "Mist" coat application.

Lift 6 East

Caltrans QA Lumley observed ZPMC personnel applying Interzinc 22 over the Cross Beam termination Bottom plate bolted areas to cover the existing surfaces which exhibited contamination from overspray from Finish coat application on the Faying surfaces. Caltrans QA informed ABF QA Don Walton of non-compliant work being performed and ABF QA Don Walton took immediate corrective actions and directed ZPMC personnel to remove freshly applied undercoat from faying surfaces by utilizing thinner and scotch pad abrasive to scrub and remove applied coating. ABF QA Manager Don Walton directed and oversaw amendment of the non-compliant issue and no incident report was issued.

Cross beam #6

ZPMC personnel performed sanding operations of previously applied Finish coating of Interfine 979 which was deemed non-compliant with the contract documents by Caltrans Engineer Aaron Prchlik on a previously requested "Final" inspection. ZPMC personnel sanded the entire external vertical surfaces and solvent cleaned residual dust and contaminants from surfaces and re-applied Interfine 979 finish coat on Dock #5. Caltrans QA Lumley observed the work in progress and performed a visual inspection of the repaired areas and observed insects flying into the freshly applied wet coating "en mass" and become encapsulated within the wet film. ZPMC attempted to remove the insects from the applied film and was asked by Caltrans QA Lumley to refrain from this activity until the applied coating had dried/cured, ZPMC complied with this request and ZPMC QC Dong Yaofei conveyed this to the coating personnel onsite.

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
