

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-002396**Date Inspected:** 19-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, Sub-Assemblies, Lift 6 West, Lift 6 East**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

Sort and organize project files and documentation. Attend to missing Notifications for Inspections and compile list for amendment.

Sub-Assemblies

ZPMC requested a "Final" inspection of Counterweights and Cover Plates. Caltrans Engineers Bill Howe and Aaron Prchlik onsite to attend to and assess general compliance with contract requirements and also perform visual inspection of Finish coated sub-assemblies. Counterweights CW38, CW40, CW42 and 18 Cover Plates were found to be in general compliance with the contract documents. Minor discontinuities were observed in finish coated surfaces of the cover plates and Counterweight Top sections within the applied finish coat film such as minor insect damages and minor dust contaminants. ZPMC was informed to remove the residual glue from the masked areas and wrap the components up for transport.

Lift 6 West

ZPMC requested a "Final" inspection with Caltrans Engineer of the Finish coated surfaces. Random arbitrarily selected locations were selected for Dry Film Thickness (DFT) verification and determined to be in general compliance with the contract documents, the Bottom, and Side Plates were verified and the only exception on the entire external surface of this Lift were minor repairs on the finish coated surfaces of the FL-3 Beams at the Cross Beam terminations due to spent abrasive being encapsulated within the wet applied coating. ZPMC to perform

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required repairs after the access scaffold and tarps have been removed in order to prevent a further occurrence of the same issue and repair accordingly.

Lift 6 East

ZPMC requested a “Final” inspection with Caltrans Engineer Aaron Prchlik of the external Finish coated surfaces. Caltrans Engineer Aaron Prchlik with Caltrans QA Lumley observed ZPMC personnel removing the access scaffolding on the entire East Side Plate area, also at the insistence of ZPMC Paint Department Manager Mr. Jiang requested repeatedly for a “Final” inspection on the other areas of the Lift. Caltrans QA Lumley and Caltrans Engineer Aaron Prchlik complied and commenced performing random DFT verification on the Bottom Plate to which the coated surfaces exhibited Low DFT readings, also on the West Side Plate repairs were being conducted and Interzinc 52 undercoat was observed on the FL-3 Beam of the cross Beam termination, ABF QA Manager was contacted regarding the issues relative to ZPMC’s requesting a “Final” when the access had been removed and the work was incomplete, Mr. Don Walton canceled the inspection. The Lift was later transported to Dock # 5 prior to completion of inspection and coating application of the external surfaces of the Bottom Plate.

Lift 5 West

ZPMC requested a “Final” inspection of the internal undercoated surfaces. Caltrans QA Lumley arrived and was informed by ABF QA personnel that the inspection had been rejected by ABF QA as the repairs were incomplete and internal surfaces were dirty and not ready for a Final inspection.

Sub-Assemblies

Base metal surfaces of various sub-assemblies were abrasive blasted to an SSPC SP-10 condition and Interzinc 22 undercoat applied. Profile amplitude was 75-80µm and chloride value of 10µs/cm was observed on abrasive blasted base metal surfaces. Counterweight CW28, Suspender Bracket SB24E, Channel Splices, Shim Plates, and Channel Iron were the components of this notification.

Sub-Assemblies

Repairs were performed due to “Rust Back” evident on 3 suspender brackets within paint shop #2 resultant of holidays from incomplete coating application of Interzinc 22 undercoat on the vertical stiffeners. ZPMC utilized a “pencil” blaster to repair subject areas of base metal to an SSPC SP-10 condition and applied Interzinc 22 undercoat to the affected areas to amend repairs. This non-compliant work was identified by Caltrans QA Lumley.

Lift 6 East

Internal weld seam repairs were being performed by ZPMC personnel by abrasive blasting to base metal and an SSPC SP-10 condition and re-application of Interzinc 22 undercoat to the affected areas.

Lift 5 West

ZPMC requested a “Final” inspection of the internal undercoated surfaces of the Floor area “T” Stiffeners and repair areas of the Upper Corner Unit weld damaged areas, ZPMC personnel were observed in process of application of Interzinc 52 to localized damages and the work was incomplete at the time of inspection. Caltrans QA Lumley informed ABF personnel that final inspection of surfaces must be clean prior to request and also informed ABF QA personnel that the entire length of the Longitudinal Stiffeners of the FL-2-1 were completely encapsulated with spent abrasives.

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

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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
