

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-002281**Date Inspected:** 03-Dec-2009**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:** 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:** Coating Inspection**Bridge No:** 34-0006**Component:** Cross Beams # 1&3, Sub-Assemblies, Lift 3**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:

Cross Beams # 1 & #3

External NDT repair areas were cleaned and undercoated with Interzinc 52 per the approved method. Rotary Abrasive disc followed by SSPC-1 cleaning was performed prior to application.

Sub-Assemblies

Inspection of eight (8) Traveler Rail Brackets for finish coating was visually viewed and Dry Film Thickness readings checked and all brackets were in general compliance with the contract documents. Bracket codes: TR1B-PP29, TR1B-PP31, TR1B-PP35, TR1C-PP30, TR1C-PP32, TR1E-PP32, TR1E-PP34, TR7B-PP8.5.

Lift 3 East

Internal Bottom Plate transverse weld seam joining 3AE/3BE NDT damaged areas of undercoat were power-tooled cleaned in accordance with SSPC SP-3/11/1 and Interzinc 52 applied per the approved repair method.

Lift 2 West

Internal NDT damages were repaired on areas of the "F" Plate /Top Plate Edge weld seam undercoat damages repaired by power tool cleaning in accordance with SSPC SP-3/11/1 and Interzinc 52 applied per the approved repair method.

Testing

Adhesion testing was performed on a burned area of Interzinc 22 undercoat per the request of Caltrans Engineer

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Bill Howe and the following values were observed. 1) 20.54Mpa area heated to approximately 500F, 100% cohesive failure and the test dolly had to be removed with another piece of steel striking it sideways. 2)8.33Mpa area heated above 1100F to a “Cherry Red” condition 20% +/- cohesive failure within the undercoat film. In both tests undercoat remained on the surface of the test sample. The test plate was a fill plate which had been cut in half by ZPMC personnel which Caltrans QA Lumley had recovered from beneath Lift 1 East from the ground.

Office

Attend to report writing and project documentation, also discussed with Caltrans QA Mark Miller and Caltrans Mr. Ching completion and status of NDT repairs on Lifts 3 and 4 East and West.

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 inquired with ABF QA Bill Oak as to why zPMC personnel are not following directions as given by ABF Bill Oak relative to expediting repairs and damaged areas of NDT repairs.

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
