

**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-001281**Date Inspected:** 25-Aug-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:** Coatings Inspection**Bridge No:** 34-0006**Component:** Tower Splice Plates, Lift 3 East, Lift 4 West, M**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

Compile and review reports and attend to project documentation. Sign and review backlog of ZPMC reports and Notice of Inspections.

Miscellaneous Metal

Base metal surfaces of Tower Splice plates Lift #1-2 were abrasive blasted to an SSPC SP-10 condition and Interzinc 22 applied. Code numbers as follows: SA101-N, SA102-N, SA170-N, SA236-N, SA98-N.

Lift 4 West

Inspection performed on weld areas of top section of floor beams from Panel Point 25-28, surfaces were rejected due to improper blast (not SP-10) and incomplete blasting. Caltrans QA Lumley rejected the work together with ABF Bill Oak. Base Metal surface temperature was too hot for application as well.

Lift 3 East

External Final acceptance inspection of Interfine 979 top-coated surfaces was performed. Conditional acceptance via verbal from Caltrans Bill Howe was accepted pending Dry Film Thickness (DFT) report.

Miscellaneous Metal

Adhesion test on plate for verification of coated elements previously coated with Interzinc 22. Adhesion value was 15.07 Mpa representative of single sample of splice plate coated with Inorganic Zinc Rich primer.

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# SOURCE INSPECTION REPORT

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ZPMC requested verification of cleanliness and testing prior to application of Interfine 979 “mist” coat on external surfaces. Caltrans QA Lumley discovered low DFT areas on approximately 35% of East side plate. Additional inspection and DFT readings ensued with ABF QA Bill Oak to isolate and identify areas for amendment and repairs. ZPMC amended by additional cleaning of surface areas via SSPC SP-1 and application of additional coat of Interzinc 22 over non-weathered low DFT areas. Additional adhesion testing was requested by Caltrans QA Lumley on the repair areas.

### Lift 4West

Weld repair areas previously rejected were re-blasted and re-inspected and found to be prepared in accordance with SSPC SP-10 and Interzinc 22 re-applied. Profile amplitude was 76-82um. Note: NDT is incomplete in these weld repair areas.

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 ZPMC QC Don Yao Fei to perform proper DFT verification and checks after removal of dry-spray from surfaces coated with Interzinc 22 which exhibit visible dry-spray on surface.

### 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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<b>Inspected By:</b>	Lumley,James	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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