

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-001307**Date Inspected:** 26-Sep-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:** Office, Miscellaneous Metal, Tower Sub-Asse**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

Review punch-list items relative to coatings that was provided by Administration.

Miscellaneous Metal

Base metal surfaces of approximately 188 pieces of Splice plates were abrasive blasted to an SSPC SP-10 condition and Interzinc 22 applied. Profile amplitude was 72-80um.

Tower Sub-Assemblies

Base metal surfaces of 4 Double Diaphragms were abrasive blasted to an SSPC SP-6 condition for pre-blast inspection to perform VT inspection and identify weld/fabrication defects exposed surface anomalies and perform grinding and Chloride testing. Chloride value observed was 20us/cm and after fabrication defects were amended, base metal surfaces were then abrasive blast cleaned to an SSPC SP-10 condition and Interzinc 22 applied.

Diaphragm codes: WSD1-131M, WSD1-135M, WSD1-139M, WSD1-143M.

Lift 3 West

Repairs to damaged and rust stained previously undercoated areas on internal Floor area of "T" stiffeners and Side plates at Panel Point 19-20 were rejected due to visible rust evident on base metal and visible rust staining on coated surfaces.

Lift 4 West

Repairs to damaged and rust stained previously undercoated areas on internal Floor area of "T" stiffeners and Side

SOURCE INSPECTION REPORT

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plates from Panel Points 26-28 were performed and Interzinc 22 re-applied to amend repair areas.

Lift 2 East

Internal surfaces of Bolt holes were cleaned in accordance with SSPC SP-3 and Interzinc 52 applied, areas coated were the bottom surfaces of the bottom of the FL-3 Beams and the attached Bottom plate.

Lift 2 West

Internal surfaces of Bolt holes were cleaned in accordance with SSPC SP-3 and Interzinc 52 applied, areas coated were the bottom surfaces of the bottom of the FL-3 Beams and the attached Bottom plate.

Lift 3 West

Internal repairs to previously undercoated surfaces were performed by abrasive blasting rusted base metal areas and rust stained coated areas. Evidence of power-tool usage was evident on the top "T" stiffeners which did not comply with the Specification and did not remove rust staining on previously coated surfaces. The "burnished" areas of the existing zinc coated surfaces were rejected due to non-compliance and subsequently re-blasted.

Interzinc 22 was re-applied after the 3rd inspection from Panel Point 19-20.

Lift 2 East

Internal "U" rib stiffeners and ceiling areas were in process of additional application of Interzinc 22 in order to build up areas of low Dry Film Thickness (DFT) as directed by ZPMC QC personnel. Caltrans QA Lumley consulted with International Protective Coatings(IPC) technical service representative Mr. Peng ZiLi relative to this work process and asked if the previously coated surfaces were "weathered" and if over-coating the Interzinc 22 was acceptable and what surface preparation was recommended by (IPC). Mr. Peng stated that adhesion testing would be required to ascertain if minimum value specified was achieved and subsequent testing would determine applicability and compliance with repairs.

Lift 2 West

Internal top Floor Beam longitudinal stiffener MT areas were re-abrasive blasted to an SSPC SP-10 condition and Interzinc 22 re-applied at Panel Points 14-18.

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 consulted with International Protective Coatings(IPC) technical service representative Mr. Peng ZiLi relative to this work process and asked if the previously coated surfaces were "weathered" and if over-coating the Interzinc 22 was acceptable and what surface preparation was recommended by (IPC). Mr. Peng stated that adhesion testing would be required to ascertain if minimum value specified was achieved and subsequent testing would determine applicability and compliance with 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
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Reviewed By:	Carreon,Albert	QA Reviewer
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