

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-001529**Date Inspected:** 31-Jan-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:** OBG 3AW, OBG 3AE, OBG 3BE, OBG 4AE**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:

OBG 5AE

Sanding and screening in process on Interzinc 22 as well as masking ends of segment for Interfine 979 application. ZPMC personnel were observed performing the work, were sanding too much surface area. They should only be performing sanding on the surface areas which have too much dry-spray on them. ZPMC and ABF QA/QC glued dollies on interior surfaces for adhesion testing. Suspect areas of floor and other locations susceptible to dry-spray contamination were chosen for adhesion test sites as well as general painted locations. Mist coat application commenced and deemed acceptable with Interfine 979 topcoat, mixing and thinning was monitored under the supervision of IPC paint representative and determined to be acceptable by the IPC paint representative. The applicator began spraying using airless spray and was stopped 3 times by the Paint representative for applying too much paint at one time. ZPMC and IPC representatives explained what the applicator was to do relative to mist coat application. Ambient conditions were monitored by the ZPMC QC as well as mixed coating temperature.

OBG 3AE

Inspection was conducted jointly with ZPMC & ABF QA/QC personnel and numerous deficiencies were identified, in particular were areas of excessive DFT on the bottom flanges of "T" stiffeners in the floor areas and on ceiling areas as well. The DFT readings were in excess of 220 microns. Caltran QA Lumley inquired as to what type of remedial action was planned by ZPMC to correct the excess DFT.

OBG 3AW

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De-greasing operations are being performed, although not completed on exterior surfaces of base metal also spent abrasive is being removed from the interior.

OBG 4AE

Blast inspection of box girder base metal faying surfaces and assemblies, profiles obtained by ZPMC QC 62-79 microns. Re-work required holes still have rust inside and missed areas on assemblies evident.

OBG 3AE

Four Box girder base metal assemblies were inspected numerous deficiencies noted for amendment, holes, missed areas, in process rework.

OBG 3BE

Box girder base metal assemblies were blasted and "T" stiffener clips as well, SP-10 was achieved and application of Interzinc 22 commenced.

OBG3AW, OBG3AE, OBG3BE, OBG4AE were all blasted outside paint shop.

Summary of Conversations:

Caltrans QA inform the QA/QC personnel to ensure that applicators utilize WFT gauges during full coat application of Interfine 979 topcoat. ZPMC informed Caltrans QA Lumley that they were not going to continue with full topcoat application as they did not wish to perform excessive repairs to the applied coating after the segments were joined together. Caltrans QA reminded ZPMC of specification requirements of application within 48 hours of water rinsing. The segment will remain in "mist" coated condition for an extended period of time. The IPC product data sheet states "extended" overcoat interval. The IPC technical representative verified this and stated this was acceptable.

Caltrans QA Lumley also inform QA/QC to ensure that residual dust contaminants must be removed prior to the application of the topcoat.

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:	Miller, Mark	QA Reviewer
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