

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-000547**Date Inspected:** 19-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 0**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 12**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Changxing Dao, Shanghai

<b>Quality Control Contact:</b>	ABF Paint Supervisor William (B)	<b>Quality Control Present:</b>	Yes	No
<b>Material transfer:</b>	Yes No N/A	<b>Sampled Items:</b>	Yes No N/A	
<b>Stock Transfer:</b>	Yes No N/A	<b>OK to Cut:</b>	Yes No N/A	
<b>Rebar Test Witness:</b>	Yes No N/A	<b>Delayed/Cancelled:</b>	Yes No N/A	

**Other:** Surface Preparation and Coatings Application**Bridge No:** 34-0006**Component:** OBG, 2AE, 2BW, 2AW**Bid Item:** 79, 80, 81**Lot No:** B226**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. Donald Jordan 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: Caltrans QA Coatings Inspectors identified mud-crack areas on OBG 2BE. International Paint's Technical Services Supervisor Wenbo Chen looked at the mud-cracking on the bike path parts. Mr. Chen stated that the possible cause of the mud-cracking in the Interzinc 22 application where excessive coating thickness has been applied was rapid evaporation of the solvents now that the ambient temperatures are warmer than before. ZPMC is preparing to take corrective measures according to the Contract Special Provisions. The areas where the coating thickness is above 150 microns plus the 20% allowed by the Society for Protective Coatings (SSPC) PA-1 for taking dry film thickness readings which will equal 180 microns maximum, will be abrasive blasted to an SSPC SP-10 surface condition and re-coated.

**OBG 2AE**

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC on OBG 2AE for degreasing and chloride testing prior to abrasive blasting. The tests came out good. The unit will be moved into the blast shop tonight.

**OBG 2BW**

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC on OBG 2BW to check the primer application of the Interzinc 22 on the interior surfaces. Several holidays were located. ZPMC began repairing the missed areas. ZPMC's QC was instructed to make sure all the touch up is performed prior to calling for an inspection in the future.

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# SOURCE INSPECTION REPORT

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OBG 1BW, 2AW

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC on OBG 2AW faying surface areas. A few spots of grinding were required to remove arc strikes, sharp edges, dings in the substrate that left sharp edges sticking up, and edge conditioning required by the Project Special Provisions Section 10-1.69. After the grinding was completed the surfaces were re-blasted to meet the SSPC SP10 Contract requirements. Surface profile Testex Tape was used by ZPMC QC personnel to record the blast profile.

The Testex tape was measured using a dial micrometer. The readings were within the contract requirements of 40 and 86 microns. Ambient conditions were within Contract required parameters. After acceptance of the surface preparation, Interzinc 22 primer was applied within the specified 8 hour window after the start of abrasive blasting. The coating was mixed under the supervision of Caltrans QA Coatings Inspector Jordan, International Paint's Onsite Technical Services Engineer Peng Zi Li and QC personnel representing ABF and ZPMC.

Coating application methods were observed by QA to insure the primer was applied using the methods outlined in the Project Special Provisions. During the application process questionable application methods were observed by QA. These issues were pointed out to ABF and ZPMC QC staff. The problem was not corrected by the applicator after ABF translated the procedure to the workers. The application problems are in the way the applicator applies the coating. From experienced observation there will be a lot of holidays, light areas, and possibly excessive millage areas. Caltrans QA Coatings Inspectors will make sure these areas meet contract requirements prior to shipment.

Fabrication on assembled components of the OBG's are not complete. Coating damage requiring re-blast is expected.

**Summary of Conversations:**

There were no relevant conversations on this date.

**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 Mazen Wahbeh (China) +8613472477571, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Jordan,Don	Quality Assurance Inspector
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<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer
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