

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-000744**Date Inspected:** 15-Jul-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

Quality Control Contact:	ABF Paint Supervisor 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: Surface Preparation and Coatings Application**Bridge No:** 34-0006**Component:** OBG, L4E, 1AAE, Misc. Metal, Tower L1E**Bid Item:** 77,78,79,80**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:

The following inspections were performed by Caltrans QA Coatings Inspector Jordan, American Bridge/Fluor Enterprises, a JV (ABF) Paint Supervisors William (Bill) Oak, ABF QC Zhou Qun Song (Joe), ABF QC David Duon, ABF QC Shi Zhaoyuan (Stone), ABF QC Zhou Wei, ABF QC Wei Chang Yun, ABF QC Sun Xiong, International Paint (IP) Onsite Technical Services Engineer (OTSE) Peng Zi Li, Zhenhua Port Machinery Company, LTD (ZPMC) QC Manager Xia Yong, ZPMC QC Zhang Diang, ZPMC QC Dong Yao Fei and ZPMC QC Guo Wan Li, ZPMC QC Xie Yong Gang, ZPMC QC An Ming, ZPMC QC Dong Ji Fang and ZPMC QC Xia Yu Juan.

OBG Miscellaneous Metal

Caltrans QA Coatings Inspectors received Notices of Inspection to attend joint inspections with ABF and ZPMC QC for surface preparation by abrasive blasting and primer coat application on 48 corner unit diaphragm faying surfaces, 12 shim plates, 8 L splice plates, 11 maintenance crane rail brackets and 2 splices. The faying surfaces of the diaphragms were not blasted because ZPMC blast personnel did not know which areas to blast. The L splices, crane rail brackets and the 2 splices were not even in the blast shop. They had no idea where they are. Only the 12 shim plates were inspected. After the inspection was completed the items that were determined to successfully meet the SSPC SP10 Near White Metal Contract requirements were transported to the paint shop area and spread

SOURCE INSPECTION REPORT

(Continued Page 2 of 3)

out for primer application. Residual Chlorides (soluble salts) tests were performed on the abrasive blasted surfaces. The Bresle Patch method was used to test for Residual Chlorides. The test results showed that the surface was acceptable to be coated with Interzinc 22. The highest registered reading of salts contamination was 10 microsiemens per square centimeter which is below the contract maximum of 10 micrograms per square centimeter (92.5 microsiemens per square centimeter). Ambient conditions were within Contract required parameters. 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 micrometer readings of the Testex Tape were within the contract requirements of 40 and 86 microns. Ambient conditions were within Contract required parameters. The surfaces to be coated were blown down again with compressed air to remove dust. After the dust was removed, 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 International Paint's Onsite Technical Services Representative, QC personnel representing ABF and ZPMC.

OBG Lift 4 East

Caltrans QA Coatings Inspectors received Notices of Inspection to attend joint inspections with ABF and ZPMC QC for surface preparation by abrasive blasting and primer coat application on OBG L4E interior fabrication damage areas in the corner units. Abrasive blasting was still in progress when the inspectors arrived. New abrasive was being used. After a while the inspection was canceled by ZPMC. The inspection will be re-scheduled after the work is completed.

Tower Lift 1 East

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC for checking the exterior surfaces after degreasing of tower lift 1 East bottom plate. The entire surface was covered in what appeared to be oil or grease that had been spread around. The issue was addressed with ABF QC personnel suggesting that the procedures for cleaning described in the contract documents from The Society for Protective Coatings (SSPC) Surface Preparation method 1. ABF translated the issue to ZPMC. The surface was cleaned again using clean solvent and clean rags. Mr. Jordan pointed out to Mr. Oak that the surface surfaces would require solvent cleaning again prior to abrasive blasting. Several spots of deleterious material remained on the surfaces. Another inspection will be required after the work is complete.

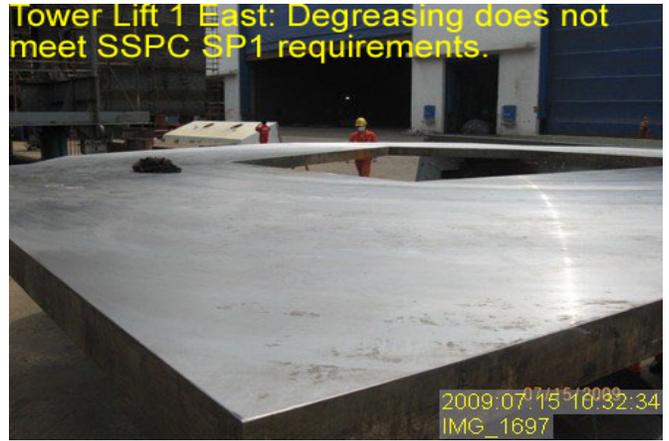
OBG 1AAE

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC for checking the exterior surfaces after degreasing of OBG 1AAE. No effort had been made to clean the surfaces prior to inspection. Mr. Jordan pointed out that the work should be performed prior to calling for inspection. Mr. Jordan observed as workers attempted to remove stains from an unknown contaminate using paint thinner. The dirt was removed but the stains remained. Mr. Jordan suggested that they try water because solvents will not remove some contaminates. Lost in translation the suggestion was not attempted. After half an hour the water and a rag arrived. The stain was removed very easily. The stains were removed prior to spot abrasive blasting on the external surfaces.

Fabrication on assembled components of the OBG's and Towers are not complete. Outstanding weld repairs have not been performed. Coating damage requiring re-blast is expected.

SOURCE INSPECTION REPORT

(Continued Page 3 of 3)



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.

Inspected By:	Jordan,Don	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
