

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-000731**Date Inspected:** 23-Jun-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 L2E, 8AE, 8BE, Tower L1S, L2S**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 and Don Walton, 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, IP OTSE Alpha Chen, 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.

All Notices of Inspection and Quality Control (QC) Inspection reports signed by Mr. Jordan on this date identify receipt of the documentation and are not intended to be identified as acceptance or rejection of the work performed.

Tower Lift 2 South

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC for checking the interior and exterior surfaces after degreasing of Tower L2S internal and external. There was no access to the external surfaces. On the internal surfaces several spots of what appeared to be oil or grease were

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identified and pointed out to ZPMC personnel. The spots were solvent cleaned to remove deleterious materials.

OBG Lift 2 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's 2AE and 2BE weld seam joint. Upon arriving at the site of inspection ambient condition readings were taken by ABF QC personnel. The ambient conditions were found to be unacceptable for coating application. The area requires re-blasting after the ambient conditions are favorable. At that time Caltrans QA Coatings Inspectors will inspect the surfaces of the base metal to insure they meet the SSPC SP10 Near White Metal Contract requirements prior to primer coating application.

OBG 8AE, 8BE

First inspection request;

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's 8AE and 8BE faying surfaces where the T beams and floor beams connect. Upon arriving at the site of inspection ambient condition readings were taken by ABF QC personnel. The ambient conditions were found to be unacceptable for coating application. The area requires re-blasting after the ambient conditions are favorable. At that time Caltrans QA Coatings Inspectors will inspect the surfaces of the base metal to insure they meet the SSPC SP10 Near White Metal Contract requirements prior to primer coating application.

Second inspection request;

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's 8AE and 8BE faying surfaces where the T beams and floor beams connect. After the inspection was completed the surfaces were determined to successfully meet the SSPC SP10 Near White Metal Contract requirements. Residual Chlorides (soluble salts) tests were performed on the abrasive blasted surfaces. The Bresel 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 20 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 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 32 splice plates for temporary works, 163 splice plates for OBG assembly and 5 channels. After looking at the abrasive blasted surfaces it was determined by ABF that the base metal did not meet the Society for Protective Coatings (SSPC) SP10 Near White Metal Contract requirements. ZPMC was informed by ABF QC that further grinding and abrasive blasting was required. ABF QC's determination was verified by Caltrans QA Coatings Inspector Jordan. The contractor began

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performing the repairs as directed by ABF QC personnel.

Tower Lift 1 South

Caltrans QA Coatings Inspectors received Notices of Inspection to attend joint inspections with ABF and ZPMC QC for verifying the dry film thickness (dft's) readings according to Society for Protective Coatings (SSPC) PA 2 guidelines on internal surfaces of Tower L1S from 28m to 33m double diaphragm. Upon arriving at the site for inspection Caltrans QA Coatings Inspector Jordan was informed that ZPMC had canceled the inspection.

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.



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
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Reviewed By:	Carreon,Albert	QA Reviewer
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