

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-000732**Date Inspected:** 24-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 Misc. Metal, Tower L2S, L2E**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.

OBG Lift 2 East

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 the internal and external weld seam

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joint of OBG L2E.

After looking at the abrasive blasted surfaces it was determined by Caltrans QA Coatings Inspector Jordan that the base metal did not meet the Society for Protective Coatings (SSPC) SP10 Near White Metal Contract requirements.

Several areas were beginning to flash rust due to high humidity in the area of the exposed surfaces. Caltrans QA Coatings Inspector Jordan observed ZPMC personnel shoveling abrasive from a dump hopper into the blast pot. Upon investigation the abrasive being used for blasting was filled with foreign materials such as metal shaving, paper and other trash. After inquiring Mr. Jordan was told that this was new abrasive. With further inquiry assisted by ABF QC personnel to assist in communication ZPMC personnel were informed that only new abrasive was approved for blasting on this project. The blast pots were cleaned out and new abrasive used to begin the re-blast.

Second inspection request exterior:

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 the internal and external weld seam joint of OBG L2E.

After looking at the abrasive blasted surfaces it was determined by Caltrans QA Coatings Inspector Jordan that the base metal did not meet the Society for Protective Coatings (SSPC) SP10 Near White Metal Contract requirements.

Several areas were beginning to flash rust due to high humidity in the area of the exposed surfaces. During the inspection it began to rain. Blasting was suspended until the weather improves.

Second inspection request interior:

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 the interior weld seam joint of OBG L2E. 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 30 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.

Third inspection request external:

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 the interior weld seam joint of OBG L2E. 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

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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 60 splice plates and the external surfaces of 4 counterweight components. 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 performing the repairs as directed by ABF QC personnel.

Tower Lift 2 South

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 Tower L2S internal from ESD to 135m. 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 performing the repairs as directed by ABF QC personnel.

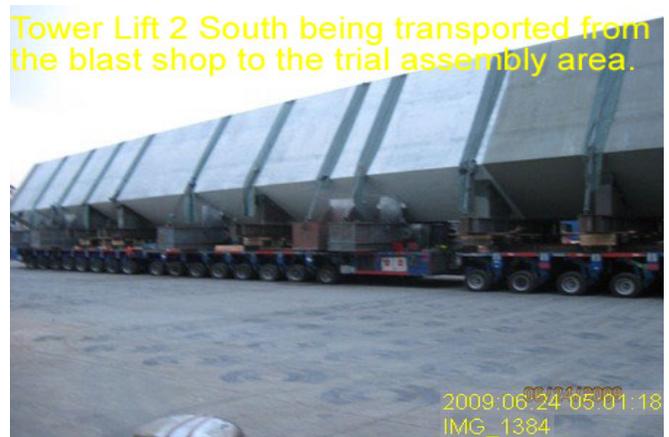
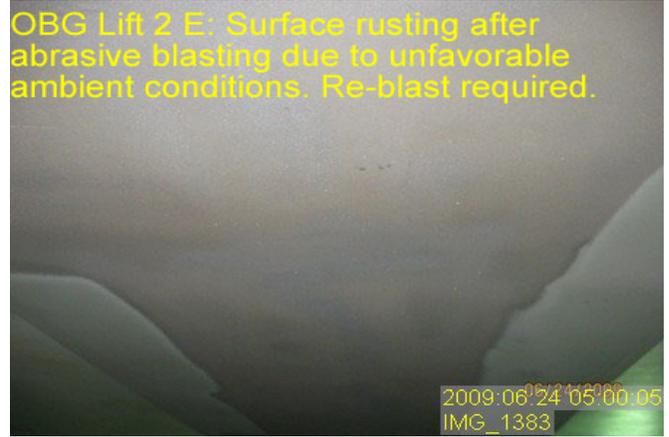
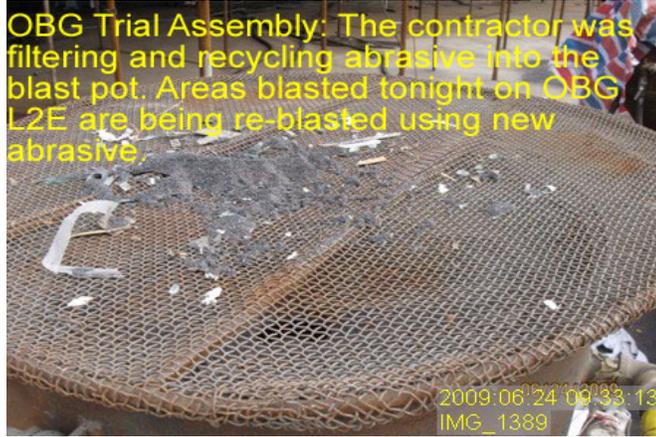
OBG Bike Path

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC for surface preparation inspection prior to final finish coat application on external surfaces of 3 bike path brackets. The surfaces were clean and dry. Dry film thicknesses (dft's) readings were within the specified range per contract. The ambient conditions were within the specified ranges of contract requirements for coating application. The contractor was allowed to proceed with final finish coat application.

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.

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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
