

**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-000564**Date Inspected:** 30-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 (Bill) Quality Control Present:	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 5 BW, 1 BW, Misc. Metal**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:

The following inspections were performed by Caltrans QA Coatings Inspector Jordan, American Bridge/Fluor Enterprises, a JV (ABF) Paint Supervisor Don Walton, ABF QC Zhou Qun Song (Joe), ABF QC David Duon, ABF QC Shi Zhaoyuan (Stone), ABF QC Zhou Wei, 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.

**Miscellaneous Metal**

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC for abrasive blast inspection of faying surfaces on the OBG floor beam to T beam clip areas in OBG's 7CW, 7DW, and 7EW.

The areas to be primed met 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.

Residual Chlorides (soluble salts) tests were performed on the faying surfaces. The test results showed that the surface was acceptable to be coated with Interzinc 22. The highest registered reading of salts contamination was 20 micro Siemens per square centimeter which is below the contract maximum of 10 micrograms per square centimeter.

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Ambient conditions were within Contract required parameters for coatings application. After inspection 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, ABF and ZPMC.

Coating application methods were observed by QA Inspector Jordan to insure the primer was applied using the methods outlined in the Project Special Provisions.

Caltrans QA Coatings Inspectors received a Notice of Inspection for to attend a joint inspection with ABF and ZPMC QC for visual inspection after abrasive blasting of around 400 miscellaneous splice plates. Many of the plates required grinding of the edges. The surface preparation did not meet the contract requirements. Further work is required. ZPMC personnel began correcting the issues. A second inspection will be performed after abrasive blasting the plates again.

### OBG 5BW

Caltrans QA Coatings Inspectors received a Notice of Inspection for to attend a joint inspection with ABF and ZPMC QC to locate visual surface anomalies and weld defects on the floor area of OBG 1BW. ABF verbally requested that the Caltrans welding staff be notified to perform VT inspection after blast. Areas requiring grinding were identified and marked by QC and QA staff. Caltrans QA Weld Inspector Eric Prue performed VT inspection to locate and mark any weld repairs required. The weld repair spots were identified by placing tape over the area so it can be located after primer application. After the inspection was complete, grinding was performed. Abrasive blasting of the ground areas was performed again. Another surface preparation inspection will be performed after blasting is complete. There were no ZPMC or ABF steel inspectors present looking for weld repairs.

### OBG 1BW

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC for checking the dry film thicknesses and chloride testing on OBG 1BW.

Residual Chlorides (soluble salts) tests were performed on the faying surfaces. The test results showed that the surface was acceptable to be coated with Interzinc 22. The highest registered reading of salts contamination was 20 micro Siemens per square centimeter which is below the contract maximum of 10 micrograms per square centimeter.

Caltrans QA Coatings Inspector Jordan observed ZPMC and ABF personnel performing dry film thickness readings according to SSPC PA 2 guidelines. The readings were recorded by ZPMC QC personnel.

### Test

Caltrans Coatings Inspector Jordan along with Caltrans Structural Materials Representative (SMR) Andrew Ferng witnessed the surface preparation and coatings application test of applying Intercure 200 HS to galvanized surfaces prior to approval. International coatings representatives were present and assisted ZPMC in the proper mixing of the coating. The adhesion testing will be performed at a later date.

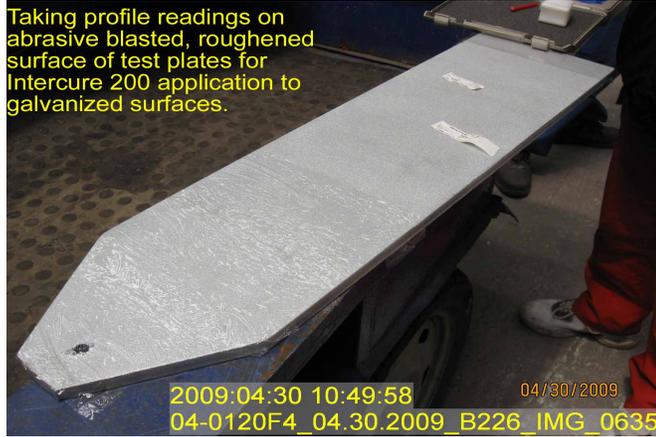
Fabrication on assembled components of the OBG's are not complete. Coating damage requiring re-blast is expected.

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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.

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

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