**DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.15

# SOURCE INSPECTION REPORT

**Resident Engineer:** Pursell, Gary
**Address:** 333 Burma Road
**City:** Oakland, CA 94607

**Report No:** SIR-001475
**Date Inspected:** 01-Apr-2009

**Project Name:** SAS Superstructure
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV
**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

**OSM Arrival Time:** 1900
**OSM Departure Time:** 700
**Location:** Changxing Dao, Shangha

| | | | |
|---|---|---|---|
| **Quality Control Contact:** | 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:** | Coatings Inspection | | |
| **Bridge No:** | 34-0006 | **Component:** | OBG 5CE,OBG 3AE, Sub-Assemblies |
| **Bid Item:** | 77, 78, 79 | **Lot No:** | B265 |

**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley 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:

OBG 5CE

Box tube assembly base metal surface re-abrasive blasted per ABF QA Bill Oak directive SP-10 followed by re-application of Interzinc 22 this segment is currently located outside the paint shop. Caltrans QA Lumley verified ABF and ZPMC QA/QC representatives perform monitoring of ambient conditions. International Protective Coatings technical service representative onsite and approved prescribed work.

Sub-Assemblies

A joint four party inspection was performed within blast shop #2 of miscellaneous base metal surfaces. Splice plates, cover plates for box tube girders, and cable angle iron were inspected jointly with Caltrans QA Lumley, ABF/ZPMC QA/QC representatives as well as International Protective Coatings technical service representative Peng Zi Li. Profile range was 65-84um and ambient conditions within the blast shop were within the requirements of both the contract documents and the coating manufacturer product data sheets. SSPC SP-10 was observed on blasted base metal surfaces and application of Interzinc 22 commenced.

OBG 3AE

Mist coat application to the bottom plate surface was performed outside the paint shops in the segment fit up area behind the tower fabrication shops. Ambient conditions were monitored and found to be within the contract documents and the coating manufacturers parameters as observed by Caltrans QA Lumley. International Protective Coatings technical service representative Peng Zi Li monitored mixing and thinning operations and directed as

needed.

OBG 3AE, OBG 3BE

Caltrans QA Lumley with ABF QA Bill Oak observed and checked the bolting operations of the assembly of the box tube girder assemblies inside these two segments, numerous locations exhibited mechanical damages due to improper tools and worker experience as well as basic carelessness. Repairs at the assembly itself were obvious as well as the damage to edges of floor beams and “T” stiffeners from dragging and dropping tools and materials onto previously zinc coated interior surfaces. Workers were observed cutting temporary bolts from these assemblies utilizing hacksaws and damages were noted.

Edge Conditioning

Five floor beam sub-assembly base metal surfaces were observed after edge conditioning and grinding operations were performed by ZPMC personnel as follows: FB004-030,FB014-130,FB013-034,FB013-033,FB004-036. Caltrans QA Lumley could not ascertain that all work was completed due to limited visibility due to stacking configuration prevented clear observation of all surfaces which edge conditioning and grinding operations took place.

Sub-Assemblies

Joint two party follow-up inspection took place within paint shop # 2 with ABF QA representative on surfaces coated with Interzinc 22 this morning. It was observed that mechanical damages had been incurred to the coated surfaces of large splice plates due to personnel walking across the “wet” coated surface, boot tracks and footprints were visible and Interzinc 22 had delaminated from the base metal surfaces. These areas were marked jointly for repairs.

**Summary of Conversations:**

No relevant conversations noted 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 Eric Tsang. (858) 699-9549, who represents the Office of Structural Materials for your project.

| | | |
|---|---|---|
| **Inspected By:** | Lumley,James | Quality Assurance Inspector |
| **Reviewed By:** | Miller,Mark | QA Reviewer |