

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002501**Date Inspected:** 09-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Lay Tao**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower/OBG**Summary of Items Observed:**

On this date, Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) Inspector Edward Leach was present to randomly observe and document the welding and Quality Control (QC) functions performed by ZPMC personnel relative to the fabrication of SAS Superstructure project. While on site, the QA Inspector noted the following work.

**Bay 3**

The QA Inspector was informed by ZPMC CWI personnel Lay Tao that ZPMC completed welding and MT for critical weld repair (CWR) 084 and 085. The CWR's were located on the tack welds joining 6A-C5 east box side plate to T rib stiffener and 6A-C5 west box side plate to T rib stiffener. ZPMC personnel found linear indications in these areas by magnetic particle testing (MT), followed by excavation and re-welded each area before performing final MT verification. The QA Inspector performed a random visual observation of the completed work and noted the work appeared to comply with the contract specifications.

**Bay 7**

The QA Inspector performed MT for several floor beam diaphragm sub-assemblies that were said to have been completed and accepted by ZPMC. This QA Inspector performed MT for approximately 10% of the 25% MT that was completed by ZPMC MT personnel. The sub-assemblies that were covered are FB005-015, FB004-028, FB013-007, FB013-008, FB005-008, FB004-005 and FB004-012. No relevant indications were noted upon completion of testing and a TL-6028 MT report was generated for these items on this date.

**Bay 8**

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# WELDING INSPECTION REPORT

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The QA Inspector randomly observed ZPMC performing heat-straightening for various tower skin longitudinal stiffener and diaphragm plates and performing fit-up and tack welding for two other internal tower diaphragm plates. No production welding was observed on this date.

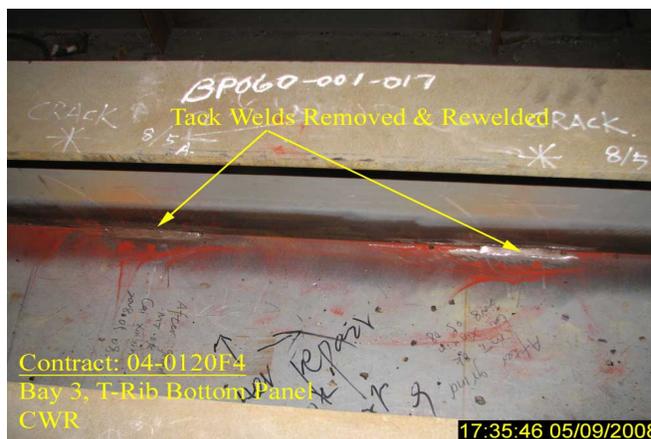
## Bay 4

The QA Inspector randomly observed that several tower diaphragm plates were in various stages of production. The QA Inspector observed four (4ea) 75mm tower diaphragm plates where submerged arc welding (SAW) of the complete joint penetration (CJP) weld splice was in process. At this time the QA Inspector also observed four (4ea) 40mm tower diaphragm plates where the CJP weld splice on either side was either tack welded or undergoing in process production welding. The work in this location appeared to comply with contract specifications.

## New Tower Shop-Bay 3

The QA Inspector performed a final MT for DP008-001 after repairs and after ZPMC personnel performed and accepted second MT after repair. The QA Inspector performed the MT on weld joint designation 006 (approximately 15% of what ZPMC completed) and observed no relevant indications. This information was later transferred to a TL-6028 MT report that was generated on this date.

The following pictures below detail some of the work in progress on this date.



## Summary of Conversations:

As noted above in report.

## 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, (818) 292-0659, who represents the Office of Structural Materials for your project.

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