

**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-001461**Date Inspected:** 20-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 200**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wen Pang Huang**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:** OBG**Summary of Items Observed:**

Caltrans Quality Assurance Inspector Gabriel Quintana (QA Inspector) arrived at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to observe fabrication and Quality Control Inspectors (QC Inspectors) perform their duties and responsibilities as specified in the contract documents, approved plans, fabrications documents and Special Provisions for this project. While on site the QA Inspector observed the following.

Bay 7- QA Inspector randomly observed ZPMC qualified welder Hong Shuili Identification (ID) #044815 utilizing the Flux Core Arc Welding (FCAW) process per the approved Weld Procedure Specification (WPS) WPS-B-T-2132-3 while performing tack welding on stiffeners on Floor Beam FB18 at weld joints FB018-001-030 and FB018-001-031. QA Inspector observed ZPMC QC Inspector Wen Pang Huang monitoring welding and preheating parameters. The QA Inspector also randomly monitored weld parameters used and recorded them as the following: 300 amps, 28 volts. The weld parameters appeared to comply with contract requirements and the approved WPS.

Bay 7- QA Inspector performed ultrasonic verification testing of Floor Beam Sub Assembly Complete Joint Penetration (CJP) welds on Floor Beams FB25-01, FB25-02, FB21-01 and FB22-02 at welds FB025-01-117, FB025-01-122, FB025-02-117, FB025-02-122, FB021-01-117, FB021-01-122, FB022-02-117 and FB022-02-122. The Ultrasonic Testing (UT) was performed to verify that 10% of the welds meet the requirements of the contract documents and AWS D1.5-2002. The weld and base metal were scanned utilizing a Krautkramer Branson USN 60. QA Inspector performed a base metal lamination check using a 25mm diameter 2.25 MHz transducer and a shear wave scan was using a 20mm x 15mm 2.25 MHz transducer on a 70 degree angle

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wedge from face A. QA Inspector utilized Scanning patterns A, B, C, and E. For details please see the ultrasonic testing report TL-6027 dated February 20, 2008. QA Inspector found the welds inspected to be in compliance with AWS D1.5- 2002 Table 6.3 and the contract documents.



## Summary of Conversations:

General conversation took place between QA and QC Inspectors.

## 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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**Inspected By:** Quintana, Gabriel

Quality Assurance Inspector

**Reviewed By:** Cochran, Jim

QA Reviewer

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