

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-001303**Date Inspected:** 28-Dec-2006**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Wu Ming Kai
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: 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 3- QA Inspector randomly observed ZPMC qualified welder He Yumei, Identification (ID) #048625, utilizing the Flux Core Arc Welding (FCAW) process using the approved Welding Procedure Specification (WPS) WPS-B-T-2132-2 while performing tack welding on Side Plate SP13 weld joints SP013-01-38/39 and SP013-01-42/43 to PL73A and PL73B plates. QA Inspector observed ZPMC Certified Weld Inspector (CWI) Wu Ming Kai monitoring welding and preheating parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 274 amps, welding voltage 28 volts. The weld parameters appeared to comply with contract requirements.

Bay 3- The QA Inspector randomly observed ZPMC qualified welder Wei Dashuai ID #051246, utilizing the FCAW process with the approved procedure WPS-B-T-2132-2 while performing tack welding on Side Plate SP009 at weld joint SP009-01-020/021 to PL17A and PL17B plates. QA Inspector performed random monitoring of the welding parameters and observed 278 amps and 28 volts during welding. The weld parameters appeared to comply with contract requirements and the approved WPS.

Bay 3- QA Inspector randomly observed ZPMC qualified welder Zhang Feng ID #049769, utilizing the SMAW

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process per the approved procedure WPS-B-P-2112-FCM while performing tack welding on Side Plate SP005 weld joints SP005-01-012/013 to PL68A and P68B plates. QA Inspector observed ZPMC Certified Weld Inspector (CWI) Wu Ming Kai monitoring welding and preheating parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 185 amps, welding voltage 25volts. The weld parameters appeared to comply with contract requirements and the approved WPS.

Bay 3- QA Inspector randomly observed ZPMC qualified welder Li Mengqian ID #054460 performing tack welding of Side Plate SP025 at weld joint SP025-01-020/021 and SP025-01-032/033 to plates PL80A and PL80B. QA Inspector observed that preheating and welding current was monitored by QC Inspector Wu Ming Kai. QA observed the FCAW process is used per WPS-B-T-2132-2. QA Inspector observed welding parameters of 275 amps and 29.7 volts were used during the weld repair. Welding and welding parameters observed by QA Inspector appear to be in general compliance with the approved WPS and contract requirements.

Bay 3- The QA Inspector observed ZPMC qualified welders Li Shuliang ID #048801, Xin Meng ID #053742, Dong Jinbao ID #049775 utilizing the FCAW process to produce multiple welds using the gantry welding machine. Weld joints completed using the approved procedure WPS-B-T-2132-3 to plate PL37A of Side Plate SP006 are BP006-01-010/011, BP006-01-014/015 and BP006-01-018/019. QA Inspector performed random monitoring of the welding parameters and observed a range of 295 to 315 amps and 29.3 to 30.9 volts are during welding. QA Inspector observed the travel speed of the gantry at 430mm/Min. The weld parameters appeared to comply with contract requirements and the approved WPS.

At this stage of fabrication, all items observed by QA Inspector appear to comply with the requirements of the Standard Specifications, contract Special Provisions, approved drawings, Welding Code AWS D1.5 (2002) and approved Welding Procedure Specification. See the following photographs which show work observed and other details.



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Summary of Conversations:

General communications took place between the QA and QC Inspector.

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.

Inspected By:	Quintana, Gabriel	Quality Assurance Inspector
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Reviewed By:	Cochran, Jim	QA Reviewer
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