

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-002804**Date Inspected:** 19-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Hu Wei Qing**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/Tower**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Roscoe Dixon was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 7 OBG:

The QA Inspector randomly observed ZPMC Welder Ren Jinzhu ID 044837 utilizing the Shielded Metal Arc Welding (SMAW Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2112 to weld floor beam flange to web plate connections. The QA Inspector randomly witnessed floor beam piece marks FB003-040-004.

The QA Inspector visually verified the electrode filler metal for the SMAW process welding as TL-508 with a diameter of 5.0mm. The QA Inspector observed that during the shift ZPMC CWI, Hu Wei Qing and various CAWI Inspectors were monitoring the electrical parameters, travel speed and temperatures in Bay #7 during the shift.

During the welding of floor beam FB003-040-004 the QA Inspector verified the welding machine amperes at 210 utilizing a Fluke Meter, the preheat temperature was verified with a crayon. The work being performed was in progress generally appeared to conform to contract specifications.

The QA Inspector randomly observed ZPMC Welder Wang Changfa, ID 058102 utilizing the Shielded Metal Arc Welding (SMAW Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2112 to weld various floor beam stiffener web plate connections. The QA Inspector randomly witnessed floor beam piece marks

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FB003-047-038, FB003-047-048, and FB003-047-058

The QA Inspector visually verified the electrode filler metal for the SMAW process welding as TL-506 with a diameter of 5.0mm. The QA Inspector observed that during the shift ZPMC CWI, Hu Wei Qing and various CAWI Inspectors were monitoring the electrical parameters, travel speed and temperatures in Bay #7 during the shift.

During the welding of floor beam FB003-014-005 the QA Inspector verified the welding machine amperes at 171.4 utilizing a Fluke Meter, the preheat temperature was verified with a crayon. The work being performed was in progress generally appeared to conform to contract specifications.

Bay 3 OGB:

The QA Inspector randomly observed ZPMC qualified Welder Zhengang ID 049769 utilizing the Shielded Metal Arc Welding (SMAW) Process with ZPMC Weld Procedure Specification (WPS) WPS-B-P-2112-FCM to tack weld side plates SP476-001-001, and SP476-001-001.

These two above listed stiffeners were visually verified by the QA Inspector as being welded to Seismic Performance Critical Member (SPCM) plate material identified by ZPMC with the use of paint stick markings on the plate shown as (SPCM), PL606 SP476. The QA Inspector visually verified the filler metal being used to weld the stiffeners to the Seismic Performance Critical Member (SPCM) plate material as electrode THJ506Fe-11 with a diameter of 5.0mm.

During the tack welding of WT stiffener SP476-001-001 the QA Inspector verified the welding machine amperes utilizing a Fluke Meter.

For more detail see photographs shown below:



Summary of Conversations:

As noted within the report shown above.

Comments

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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:	Dixon,Roscoe	Quality Assurance Inspector
Reviewed By:	Hager,Craig	QA Reviewer
