

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-003959**Date Inspected:** 21-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**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:**

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

OBG Bay 3:

The QA Inspector randomly observed 2 ZPMC helpers utilizing angle grinders to remove coating in areas prior to the fit up and welding of stiffeners.

The QA Inspector randomly observed 1 helper utilizing an angle grinder to blend tack welds attaching 1 each 35 millimeter (mm) I-Rib and 2 each 30 mm I-Rib to Deck Plate DP735-001.

OBG Bay 4:

The QA Inspector randomly observed ZPMC welders Wang Zhanghua ID Number 053753, Yang Gengcheng ID Number 066418, Tan Xiangbo ID Number 066459 and Du Huan Hua ID Number 037779 utilizing the Flux Cored Arc welding (FCAW) Process in the 3G (Vertical Groove) Position with ZPMC WPS WPS-B-T-2233-U3-F, to weld the web to web joints 33M Tower Diaphragm SSD1-SA322/SA276 at Weld Joint (WJ) Numbers SSD1-SA322A/B-13, 15 and 18. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Yu Dong Ping monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

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OBG Bay 7:

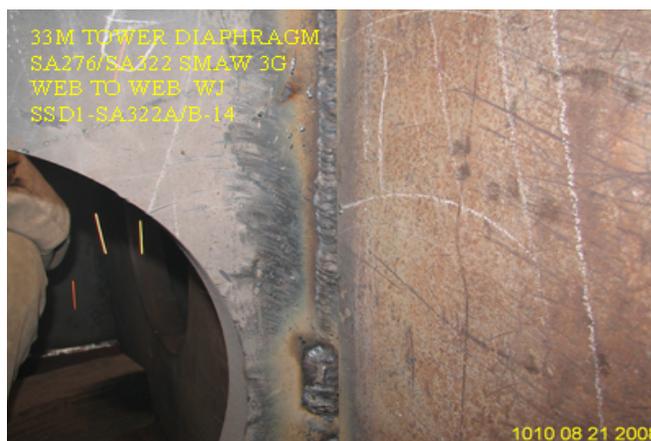
The QA Inspector randomly observed ZPMC welder Hong Shuili ID Number 044815, utilizing the FCAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-TC-U4b-F to weld the end flange to Floor Beam Sub-Assembly FB030-001 at WJ 127. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 300 amps, 30 volts with a travel speed of 323 mm/min. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

Bay 8:

The QA Inspector randomly observed 4 ZPMC welders utilizing the Shielded Metal Arc Welding (SMAW) Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-3312-TC-P5, to tack weld Webs to 47.6 M(S) Top Tower Diaphragm. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

OBG Assembly Area-Bay 3 Outside:

The QA Inspector was requested by ZPMC QC perform Magnetic Particle Testing (MT) of 3 WJ's on Floor Beam Sub-Assembly FB028-001, that had been repaired after removal of defects. The QA Inspector was informed by ZPMC QC that FB028-001 was located in OBG Sub-Assembly Bay 7. The QA Inspector tried to locate F028-001 in Bay 7, but it had already been removed. ZPMC CWI Huan Wen Pang received information that it had been taken over to the OBG Assembly Area; but did not have the exact location. The QA Inspector went over to the OBG Assembly area and located FB028-001 on a trailer outside and across the roadway from the front of the OBG Assembly Area Bay 3. The QA Inspector performed the MT of FB028-001 at that location. The QA Inspector performed the verification MT of the repairs to WJ's 139, 141 and 147 on FB028-001. There appeared to be no indications and the QA Inspector accepted and signed off on WJ's 139, 141 and 147 on FB028-001.



Summary of Conversations:

As noted in the above body of this report.

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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 Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
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Reviewed By:	Carreon,Albert	QA Reviewer
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