

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-003071**Date Inspected:** 11-Jun-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:	Huang Wen-Pang / Li Zhi Jing	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:

Bay 3

This Quality Assurance (QA) inspector arrived at ZPMC in Shanghai China for observation of Orthotropic Bridge Girders (OBG) and Self Anchored Suspension (SAS) Bridge. During this QA inspector's observation in bay 3 it was noted that ZPMC was in process for fit-up at multiple stages on side and bottom plates. ZPMC Certified Welding Inspector Wu Ming Kai was present at the time of observation and this QA inspector spoke with Mr. Kai on the work in process for bay 3. It was stated that tack welding for side, bottom and edge plates were in different stages of fit up. Component numbers DP034-001 and DP035-001 under WPS-B-P-2112-FCM using Shielded Metal Arc Welding (SMAW) welders observed for the above location were Zhang Feng and Yang Gencheng. At gantry-2 it was observed that ZPMC was placing fillet welds with the FCAW process on edge plates EP040-001 and EP054-001. The CWI was monitoring the welding parameters and in process welding throughout this bay assisted by ZPMC Quality Control personnel.

Bay 4

During observations by this QA inspector it was noted in bay 4 that ZPMC was performing Submerged Arc Welding (SAW) process for diaphragm plate splice WSD1-SA287-3/4A under WPS-B-T-3221-B-U3c-S-1 with welding operator Jian Jing Teng. ZPMC CWI Zhao Chen Sun was present during the welding operations to monitor the process and welding parameters for this shop. It was noted that at this location ZPMC was placing intermediate fill passes for the diaphragm plate splice. Also noted was ZPMC working at several locations for side plates, bottom plates and edge plates for final grinding and visual inspection by ZPMC.

Bay 7

This QA inspector observed ZPMC in bay 7 performing fit up operations in multiple stages for floor beam components. The following floor beams were observed by this QA inspector FB033-001-101 web plate splice.

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

ZPMC was using natural gas torch for the pre-heat process prior to performing the SAW process. ZPMC Quality Control (QC) personnel were present to maintain proper tolerances as required by the WPS. This QA inspector also observed ZPMC performing in process weld repairs due to inadequate weld profile discovered by ZPMC CWI while monitoring the weld progress for floor beam FB003-038. Heat straightening was observed for web plate FB003-034 under ZPMC procedure HSR1 (B)-1075 with a 650°C maximum heat which was being monitored and documented by ZPMC QC personnel. ZPMC was welding the diagonal tube steel brace support for SSD9A-PP019-133 in the vertical position with FCAW under WPS-B-T-2233-Tc-U4b-F, welder Zhang Qing Quan was observed by this QA inspector. It was noted that ZPMC's CWI Huang Wen-Pang was present during the welding operations in this bay and monitoring welding parameters and in process progression. Also present to assist Mr. Wen-Pang was ZPMC QC personnel for monitoring.

Bay 8

This QA inspector continued his observation in bay 8 as ZPMC was using the Submerged Arc Welding (SAW) process for diaphragm plate number ESD1-SA301-11/12A under WPS-B-T-3221-B-U3c-S-1 with welding operator for this location was Xu PeiPei. ZPMC was using a natural gas torch for the pre-heating process to maintain temperature between weld passes. There are multiple diaphragm plates in this bay at different stages of fabrication this day there approximately 33 diaphragm plates. ZPMC CWI Lv LiQing was observed being present at this location to monitor the welding parameters and progression and assisted by ZPMC Quality Control personnel.



Summary of Conversations:

As Noted Above.

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: Riley, Ken

Quality Assurance Inspector

Reviewed By: Carreon, Albert

QA Reviewer
