

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-002822**Date Inspected:** 04-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Jiang Jian Fei, Xu Le feng**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**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

New Tower Bay 1

The Caltrans QA Inspector randomly observed the milling of weld bevels on miscellaneous parts for the tower.

The Caltrans QA Inspector randomly observed the Shielded Metal Arc Welding (SMAW) of run-off tabs in the flat groove (1G) welding position on weld joining Piece Mark p223A to p223B. The weld number was not yet written on the plate. The welder was Li Jiniong (I. D. 040500). The QA Inspector verified the qualifications of the welder by looking at his qualification card. The type electrode, E7018 (TL 508) was also verified and a portable electrode oven was in use. During the time of observation, no ZPMC quality personnel were monitoring this work. Welding ceased within ten minutes of the initial observation and did not resume during the shift. The ZPMC QA shift coordinator, Li Xiu Yang, was contacted and helped determine that a QC Inspector in the shop was monitoring this weld as well as the SAW of two other joints.

New Tower Bay 2

The Caltrans QA Inspector randomly observed the milling of weld bevels on miscellaneous parts for the tower.

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

The Caltrans QA Inspector randomly observed the Shielded Metal Arc Welding (SMAW) of run-off tabs in the flat groove (1G) welding position on Weld Nos. ESD1-SA80-42A and ESD1-SA80-45A. The welder was Liu Wei (I. D. 048532). The QA Inspector verified the qualifications of the welder by looking at his qualification card.

The type electrode, E7018 (TL 508), was also verified and a portable electrode oven was in use. A ZPMC Quality Control Inspector was monitoring this work during the time of observation.

The Caltrans QA Inspector also randomly observed the Submerged Arc Welding (SAW) of the root pass on Weld Nos. ESD1-SA77 D/E-6A, 8, 21A and Weld Nos. ESD1-SA77 D/E-11A, 6, 20A in the flat groove (1G) welding position. Each of the three welds above are actually on one weld joint. The “A” welds are CJP and are at each end of the applicable joint and the remaining welds are PJP and are between the applicable CJP welds. The welding operator was Shen Mei (I. D. No. 041716) and the Welding Procedure Specification (WPS) No. was WPS-B-T-2221-B-U3c-S-1. Certified Welding Inspector (CWI), Jiang Jian Fei (CWI No. 07120691) was present during the welding of both welds, as was ABF QA Inspector, Yang Yi heng. The QA Inspector verified the qualifications of the welding operator, and that the electrode/flux classification, diameter of electrode, amperage, voltage, travel speed, and preheat/interpass temperatures were within the specified ranges on the WPS.

All above observations appeared to meet the requirements of the job specifications.



Summary of Conversations:

As identified within the contents of this report.

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: Jobs, Kenneth

Quality Assurance Inspector

Reviewed By: Cochran, Jim

QA Reviewer