

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-002842**Date Inspected:** 07-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:** Wang Sai fa, 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, OBG**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 also randomly observed the machine Submerged Arc Welding (SAW) of fill passes on Weld Nos. SSD1-SA17 G/G-59A, 54, 6A and 7, Skin Plate Face "C" in the flat groove (1G) welding position. The four welds above are actually on one weld joint. The "A" welds are CJP. Remaining welds are PJP. The welding operator was Yun Jun Xian (I. D. No. 0503060) and the Welding Procedure Specification (WPS) No. was WPS-B-T-2221-B-U3c-S. Certified Welding Inspector (CWI), Xu Le feng (CWI No. 07031411) was present during the welding, as was ABF QA Inspector, Kong Yian hui. 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.

Later in the shift, the Caltrans Inspector observed all of the above personnel making Weld Nos. SSD1-SA16A/G-48A, and SSD1-SA173F/K-13A; Skin Plate Face "E", using the same WPS.

New Tower Bay 2

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

The Caltrans QA Inspector also randomly observed the machine Submerged Arc Welding (SAW) of fill passes on Weld Nos. ESD1-SA216 A/E-6A and 6B, Skin Plate Face "D"; and Weld Nos. ESD1-SA80 A/E-42A and 42B, Skin Plate Face "D" in the flat groove (1G) welding position. The welding operator for both welds was Shen Mei (I. D. No. 041716) and the Welding Procedure Specification (WPS) No. was WPS-B-T-2221-B-U3c-S. Certified Welding Inspector (CWI), Jiang Jian Fei (CWI No. 07120691) was present during the welding, 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.

OBG Shop 1

The Caltrans QA Inspector also randomly observed the machine SAW joining U-ribs to deck plates DP556-001 and DP591-001. The Welding Procedure Specification (WPS) being used was WPS-B-T-2342-U1(Urib)-3. This procedure is a combination procedure utilizing Gas Metal Arc Welding (GMAW) for the root pass and SAW for the fill pass. The SAW portion of the WPS was being used in the horizontal groove (2G) welding position to make multiple simultaneous welds using Gantry Welding Station No. 2 in OBG Shop No. 1. Certified Welding Inspector (CWI), Wang Sai fa (No. 0712080), was present during this welding as was ABF QA Inspector/CWI Lv Yun.

The following welding operators were used to perform this welding:

Xiang Jie (I. D. No. 059378)

Hung Huan Feng (I. D. No. 059416)

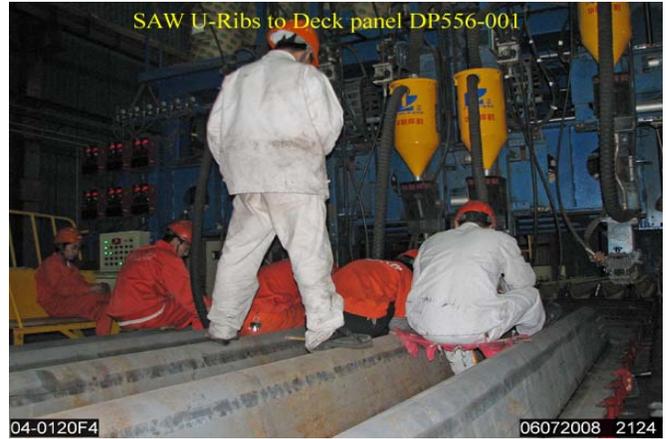
Gao Xin Dong (I. D. No. 059361)

The qualifications of the welding operators were verified by the QA Inspector. The welding parameters appeared to be within the ranges specified on the WPS. The welding on both panels was completed during this shift.

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

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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