

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-002205**Date Inspected:** 15-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2330**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Shu Zhong Hai/An Qing Xing**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 Girder (OBG) and Tower.

New Tower Shop Bay # 2

The QA Inspector observed welding operator Xin Yong Liu, ID 048882 performing the Submerged Arc Welding Process (SAW) at the front of Bay # 2 utilizing WPS) WPS-B-T-2221-B-U3L-S-1 in the 1G (Groove) position to weld fill passes for a complete joint penetration (CJP) weld joint for tower skin plate Weld Joint designated as ESD-SA216 A/K-15B, and welding operator Xue Yian, ID 040634 at the back of bay #2 utilizing WPS) WPS-B-T-2221-B-U3L-S-1 in the 1G (Groove) position to weld fill passes for a complete joint penetration (CJP) weld joint for a tower skin plate Weld Joint which was designated as ESD-SA170 B/G-16A in the process of welding

The QA Inspector visually verified a single electrode was being utilized for the fill weld passes, and the filler metal was JW-3 with a diameter of 4.8 millimeters.

The Flux was verified as JF-B, the base material listed on the (WPS) as grade 345. The QA Inspector observed and noted that during the welding operation the ZPMC welding operators would before welding over previous deposited weld pass utilized the proper cleaning method to remove slag prior to resuming the welding operation.

The QA Inspector observed that ZPMC CWI Shu Zhong Hai, was assigned to the skin plate at the front of shop # 2

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CWI, An Qing Xing was assigned to the skin plate at the back of shop # 2, also during the shift both CWI Inspectors and various ZPMC CAWI Inspectors were monitoring the electrical parameters, travel speed and temperatures at each welding station in Bay # 2.

The welding of W/J ESD-SA170 B/G-16A was completed during the QA Inspectors shift, while the welding of ESD-SA216 A/K-15B was still in progress during the QA Inspectors shift. The work performed generally appeared to conform to contract specifications.

New Tower Shop Bay # 2:

The QA Inspector observed welding operator Xu Xiusui ID 040489 performing the Submerged Arc Welding Process (SAW) utilizing WPS) WPS-B-T-2221-B-U3L-S-1 in the 1G (Groove) position to weld fill passes for a complete joint penetration (CJP) weld joint for tower skin plate Weld Joint designated as SSD1-SA16-E/G-11B.

The QA Inspector visually verified a single electrode was being utilized for the fill weld passes, and the filler metal was JW-3 with a diameter of 4.8 millimeters.

The Flux was verified as JF-B, the base material listed on the (WPS) as grade 345. The QA Inspector observed and noted that during the welding operation the ZPMC welding operator would before welding over previous deposited weld pass utilized the proper cleaning method to remove slag prior to resuming the welding operation.

The QA Inspector observed that ZPMC CWI Zhu Zhong Hai, and various ZPMC CAWI Inspectors were monitoring the electrical parameters, travel speed and temperatures at various welding stations in Bay # 1.

The work being performed was in progress and generally appeared to conform to contract specifications. For more detail see photographs shown below:



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Summary of Conversations:

As noted within the report shown 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:	Dixon,Roscoe	Quality Assurance Inspector
Reviewed By:	Hager,Craig	QA Reviewer
