

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-003178**Date Inspected:** 24-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**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:** Fu Yu Hong**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 and OBG**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

The QA Ultrasonic testing (UT) OBG

The QA inspector performed ultrasonic testing (UT) at the completed joint penetration at the floor beam connection for the PP023 weld joint SEG-015-130 and 131. The QA inspector was performing 10 % UT at random location.

The QA inspector witnessed ZPMC verification at the Segment 4AW at the junction of the bottom plate to the side plate weld joint # SEG-017-007 and 008. ZPMC found rejectable indications on approximately 15% of the weld length. The QA inspector performed random verification of the areas rejected by ZPMC. The QA inspector concurred with ZPMC' assesment on random areas checked by the QA inspector at the weld joint SEG-017-008.

OBG Shop bay #1

ZPMC did not weld any PMT on this date. The QA inspector had a conversation with Caltrans Task Leader Jimmy Cochran. Mr. Cochran informed to the QA inspector that ZPMC on the nighth shift rejected three production monitoring tests PMTs for the production deck panel DP-572-001 welds 012 thru 023. The QA inspector had a conversation with QC ZPMC representatives on the area. ZPMC informed that Production did not know when they would start welding PMTs again because ZPMC needed to fit-up another separated 500 mm test specimen.

The QA inspector observed ZPMC performing layout, cutting, beveling, milling, fitting and welding activities in

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bay # 1 and 2 on the Tower Assembly shop.

The QA inspector observed ZPMC welding operator Sun Tao (040385) performing welding operations with the submerged arc welding (SAW) process using the WPS-BT2221-U3 c-S in the flat (1G) position at the weld joint # SSD1-SA-119 D/F-30B longitudinal Stiffener (butt joint). The QA inspector performed random welding parameters verifications. The QA inspector found that the welding parameters appeared to be in compliance with the contract documents.

The QA inspector observed ZPMC welders Sun Tao performing welding operations with the flux cored arc welding (FCAW) process using the WPS-B-T-2231-B-U3-F in the flat (1G) position at the joint # SSD1-SA-173 G/K 39A longitudinal stiffeners splices. The QA inspector performed welding parameters verifications the QA inspector found that the welding parameters appeared to be in compliance with the contract documents.

The QA inspector observed ZPMC welding operator Liu Zhen Hong performing welding operations with the submerged arc welding (SAW) process using the WPS-BT2221-U3 c-S in the flat (1G) position at the weld joint # NSD1-SA-159-D/J-3A skin plate connection(butt joint). The QA inspector performed random welding parameters verifications. The QA inspector found that the welding parameters appeared to be in compliance with the contract documents.

The QA inspector observed ZPMC welding operator Sun Ping performing welding operations with the submerged arc welding (SAW) process using the WPS-BT2221-U3 c-S in the flat (1G) position at the weld joint # ESD1-SA80 B/F-13B skin plate connection(butt joint). The QA inspector performed random welding parameters verifications. The QA inspector found that the welding parameters appeared to be in compliance with the contract documents.

Heat Straightening Operations

The QA inspector observed ZPMC performing heat straightening operations at the weld joint # ESD1-SA 294 A/G plate P1294 correcting a 3 mm total deformation according with HSR1(T)-2427. ZPMC's heat straightening operations appeared to be in compliance with the contract documents.

The QA inspector observed ZPMC performing heat straightening operations at the weld joint # ESD1-SA 107 E/J-7B plate P326(E) and P329(E) according with HSR1(T)-2424. ZPMC's heat straightening operations appeared to be in compliance with the contract documents.

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 Joshua T. Ishibashi, 086-13764710411., who represents the Office of Structural Materials for your project.

Inspected By:	Acuna,Alfredo	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
