

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-003772**Date Inspected:** 02-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**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 and Tower**Summary of Items Observed:**

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

OBG Sub-Assembly Bay 1**Magnetic Particle Testing of GMAW Closed Rib Tack Welds**

The Quality Assurance Inspector witnessed ZPMC perform magnetic particle testing to the tack welds on Deck Panel DP-147-001. ZPMC marked 61 out of 280 tack welds for repair. Later in the shift, ZPMC performed magnetic particle testing to the tack welds on Deck Panel DP-440-001 and marked 34 out of 280 tack welds for repair. The locations were recorded and placed on the internal server for future review. It was observed that ZPMC was performing the test and ABF representatives were evaluating and marking the results on the part for repair. The locations were recorded and placed on the internal server for future review.

The Quality Assurance Inspector observed ZPMC performing fit-up and tack welding operations to Deck Panel DP-386-001 utilizing the gas metal arc welding process.

Deck Panel Production Welding

The Quality Assurance Inspector witnessed the welding of the production deck panels DP-147-001(5 rib). The welding of the deck panel was performed on gantry 1 to produce the partial joint penetration groove weld. Upon completion of the gas metal arc welding (GMAW) root pass ZPMC performed the subsequent submerged arc welding (SAW) pass. The parameters appeared to be within welding procedure specification for dual process

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ABF Representative Don Walton informed QA that ZPMC was shipping a total of five (5) Tower Double Diaphragms identified as ESD1-38m, ESD1-33m, SSD1-38m, SSD1-47.6m and SSD1-23m for machining with fabrication and testing not completed. The aforementioned double diaphragms were not accepted by ABF Quality Control (QC) at time of shipping to Nantong due to weld discontinuities in need of repair, required nondestructive testing not completed and weld terminations not acceptable to project specifications. Mr. Walton supplied QA with a punch list of outstanding items that ABF supplied to ZPMC. The Quality Assurance Inspector generated an Incident Report pertaining to the issue under the direction of Structures Material Representative Josh Ishibashi. Below is a digital photograph illustrating the loading in progress.



Summary of Conversations:

As stated in the contents of the above 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 Ady Velasco(707) 552 7715, who represents the Office of Structural Materials for your project.

Inspected By:	Bertlesman,Greg	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer
