

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-003668**Date Inspected:** 29-Jul-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**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 Assembly Bay

Segment 5AE – No ZPMC personnel was observed working on the segment.

Segment 5BE – No ZPMC personnel was observed working on the segment.

Segment 5CE – The Quality Assurance Inspector observed ZPMC performing miscellaneous grinding to the side panels.

Segment 3AE – The Quality Assurance Inspector observed ZPMC assembling scaffolding.

Segment 3BE – No ZPMC personnel was observed working on the segment.

Segment 4AE – The Quality Assurance Inspector observed a ZPMC welder performing in progress welding joining Longitudinal Diaphragm plate LD-006-001 to Floor Beam FB-002-003. The welder was utilizing the shielded metal arc welding process to produce the complete joint penetration weld in the vertical position.

Segment 4BE – No ZPMC personnel was observed working on the segment.

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The Quality Assurance Inspector observed ZPMC in the process of fitting up and tack welding four corner assemblies for various segments utilizing the shielded metal arc welding process.

Segment 5CW – No ZPMC personnel was observed working on the segment.

Segment 5BW – The Quality Assurance Inspector observed at Floor Beam FB-003 weld identification SSD1-PP33-124 a 5 millimeter root opening where a fillet weld is required. Below is a digital photograph illustrating the condition.

The Quality Assurance Inspector observed at weld identification SSD1-PP33-126 the complete joint penetration weld was thermally cut by hand. The Quality Assurance Inspector informed ZPMC Quality Control of the requirements of AWS D1.5 2002, section 3.2.2, which states “In all thermal cutting, the cutting flame shall be so adjusted and manipulated as to avoid cutting beyond (inside) the prescribed lines. The roughness of thermal cut surfaces shall be no greater than that defined by the American National Standards Institute, ANSI B46.1, Surface Texture. For material up to 100 mm [4 in.] thick, the maximum surface roughness value shall be 25 μm [1000 $\mu\text{in.}$]. Steel and weld metal may be thermally cut, provided a smooth and regular surface free from cracks and notches is secured, and provided that an accurate profile is secured by the use of a mechanical guide. Free hand thermal cutting shall be done only where approved by the Engineer.” ZPMC relayed they were not aware of the requirement and planned to weld the joint in the as built condition.

Segment 5AW – No ZPMC personnel was observed working on the segment.

Segment 4BW – ZPMC was observed performing miscellaneous grinding to side panels web splice reinforcing,

Segment 4AW – No ZPMC personnel was observed working on the segment.

Segment 3AW – The Quality Assurance Inspector observed



Summary of Conversations:

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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
