

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-005174**Date Inspected:** 12-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Shen Fuyou**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:** cross braces and OBG segments**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG assembly bay 19

QA observed ZPMC personnel tack welding cross beam diaphragm sub assembly identified on the material as mark# FB209A. No other work was being performed on this project in this bay at the time QA was present.

OBG outside assembly (OBG segment 3BW)

QA observed ZPMC welding personnel preparing to perform weld repairs on Complete Joint Penetration (PJP) weld identified on the material as SEG015A-009. This QA reviewed the approved Critical Weld Repair (CWR) procedure provided to QA by ZPMC QC CWI identified as Mr. Shen Fuyou and discovered that ZPMC had revised the procedure from the previous day but had not submitted the revision to the engineer for approval. QA informed Mr. Fuyou that this was unacceptable. Mr. Fuyou told this QA that the welders would not perform the repairs until the revisions were approved. (see this QA's daily report dated 1/11/09 for details concerning the above mentioned CWR). Revisions were made to the position of the joint (2G to 4G). The depth of excavation was changed from ½ thickness to 65% of material thickness and the WPS number had been changed.

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OBG outside assembly (OBG segment 4BW)

This QA performed Visual Testing (VT) prior to Caltrans QA Magnetic particle Testing (MT) technicians performing MT on the following weld joints identified on NDT notification # 001827: FB003-012-011~018, 023~030, 035~042, 047~052, FB003-018-011~018, 023~030, 035~042, 047~052, FB003-003-023~030, 035~042, 047~054. NOTE: QA had access to only one side of floor beam FB003-003 due to the fact that there was no scaffolding erected on the outboard side of this floor beam. All welds tested appeared to meet the requirements of the contract documents and AWS D1.5 2002.

QA noted numerous non compliant nicks and gouges in base metal surfaces and edges that have not yet been repaired by the contractor throughout the entire segment.

OBG outside assembly (OBG segment 4AW)

This QA performed Visual Testing (VT) prior to Caltrans QA Magnetic particle Testing (MT) technicians performing MT on the following weld joints identified on NDT notification # 001827: FB003-002-020,022,044, 046,023~030,FB003-004-011~018,023~030,035~042,047~052,008,010,020,022,032,034,044, 046. NOTE: QA had access to only one side of floor beam FB003-002 due to the fact that there was no scaffolding erected on the outboard side of this floor beam. All welds tested appeared to meet the requirements of the contract documents and AWS D1.5 2002.

OBG outside assembly (OBG segment 5BW)

QA observed ZPMC welding personnel performing 23 weld repairs on the but joint joining the corner assembly bottom panel to the OBG side panel. QA was unable to identify the weld joint number.

QA observed ZPMC welding personnel performing weld repair on weld joint SP012-137 @ PP034 in the 4G position.

QA observed ZPMC welding personnel performing weld repairs on deck panel splice joint# SEG025*-028 in the 4G position.

QA observed that the contractors QC inspectors appeared to be monitoring all of the above mentioned activities on this segment.

OBG outside assembly (OBG segment 5AW)

QA observed ZPMC welding personnel excavating areas to be repaired by welding on weld # FB15B-128 @ PP031.

QA observed that the contractors QC inspectors appeared to be monitoring all of the above mentioned activities on this segment.

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Summary of Conversations:

As mentioned 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 Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Hall, Steven	Quality Assurance Inspector
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Reviewed By:	Carreon, Albert	QA Reviewer
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