

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016877**Date Inspected:** 20-Sep-2010**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:	Mr. Huang min / Mr. Tian Lei	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:	Orthotropic Box Girder (OBG)	

Summary of Items Observed:

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

BAY- 1

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint E2-SB1-005-077,078. Welder is identified as 216575. ZPMC Quality Control (QC) is identified as Mr. Xiang Feng Feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint E2-SB1-007-075,076. Welder is identified as 069043. ZPMC Quality Control (QC) is identified as Mr. Xiang Feng Feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

BAY- 2

Submerged Arc Welding (SAW) of weld joint LD3048-001-004. Welder is identified as 250050. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS:

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WPS-B- T-2221-B-L2c-S-2.

FCAW of weld joint FB3317-001-087,088. Welder is identified as 045209. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint E5-SB1-021-126~131. Welder is identified as 201583. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint E5-SB1-031-126~131. Welder is identified as 045203. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

BAY- 3

During the Caltrans QA in-process observations of the fabrication of Longitudinal Diaphragm LD3025A, this QA observed ZPMC personnel heat straightening excessive distortion on Seismic Performance Critical Material (SPCM) without the Engineers approval. Distortion measured approximately 12mm per 1000mm. Additionally the material was heated to a bright red condition. This QA Inspector observed that a 760°C Tempilstik melted when struck against the heated area of the material. The AWS D1.5 Section 3.7.3 states that the heated steel shall not exceed 650°C, (a dull red color). A temperature indicating crayon, digital temperature measurement gauge, or other similar means of monitoring the temperature was not utilized by ZPMC QC and the actual maximum attained temperature was not measured. The effected welds are identified as LD3025-001-083,084,177 and 178. These welds are Complete Joint Penetration (CJP) butt joints, joining Lifting lug plates (X3514F) and (X3514B-SPCM) to LD web plate (X3451B-SPCM-TTP). The LD web plate material thickness is 18 mm.

This QA generated an incident report on this date for the above issue, for further information see the incident report and attached photos.

BAY- 7

FCAW of weld joint W2-SB1H-003-126~131. Welder is identified as 215689. ZPMC Quality Control (QC) is identified as Mr. Xu hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint FB3242-001-025,026. Welder is identified as 0624475. ZPMC Quality Control (QC) is identified as Mr. Xu hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

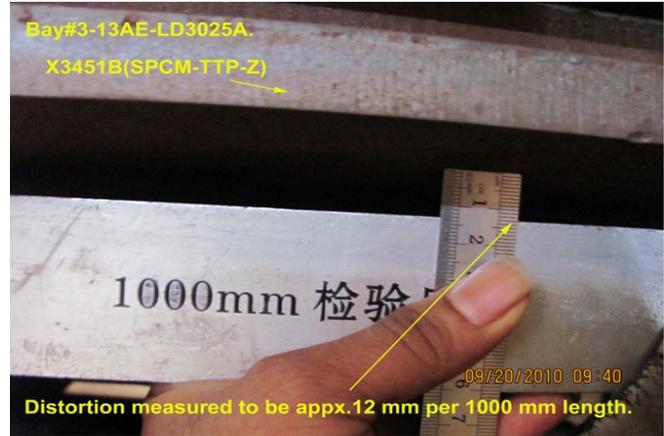
BAY- 8

FCAW of weld joint BK004A1-053-043. Welder is identified as 066421. ZPMC Quality Control (QC) is identified as Mr. Feng Ya Jun. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2232-TC-U4c-F.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

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: Prabhu,Surendra

Quality Assurance Inspector

Reviewed By: Hall,Steven

QA Reviewer