

**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-013175**Date Inspected:** 14-Apr-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:** Li Yang**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:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz 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 Yard

8CE

Shield Metal Arc Welding (SMAW) welding was performed on weld joints 113~118 located at CA042 between panel points 70&71 bike path of segment. Welder is identified as Mr. Yin Xiaokai (050232). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-4113-2.

Shield Metal Arc Welding (SMAW) welding was performed on weld joints 039~037 located at SEG048E between panel points 70&71 cross beam side of segment. Welder is identified as Mr. Chen Renzhi (055087). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-4113-2.

Shield Metal Arc Welding (SMAW) welding was performed on weld joints 037~042 located at CA054 between panel points 67&68 bike path of segment. Welder is identified as Mr. Feng Huajun (066258). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with

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WPS-B-P-4113-2.

7AW

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 007 located at SEG033A cross beam side of segment. Welder is identified as Mr. Zang Yanbo (040196). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and CWR1403 repair procedure.

Y Location of repairs areas by above noted welder (040196) is located at 550 and 580mm.

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 011 located at SEG033C cross beam of segment. Welder is identified as Mr. Li Zaijun (037996). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2233-Tc-U4b-F.

7BW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 031 located at SEG035A cross beam of segment. Welder is identified as Mr. Yun Chuansheng (045221). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and CWR1404 repair procedure.

Y Location of repairs areas by above noted welder (045221) is located at 535, 590, 710, 1075 and 1935mm.

Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions at Tail Assembly Yard. Locations and description of work are as followed:

7DE+7EE

1. Fitting up deck plate weld splice with temporary attachments.

NDT Observation

This QA Inspector observed ZPMC Magnetic Particle Testing (MT) Technician performed MT on various locations in the trial assembly yard. Locations and indications are as followed:

7AW+7BW

1. Deck Plate weld splice and temporary attachments on both sides of weld joint. (Internal)
2. Bottom plate weld splice and temporary attachments on both sides of weld joint. (External)

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This QA Inspector observed ZPMC Ultra Sonic Testing (UT) Technician performed UT on various locations in the trial assembly yard. Locations are as followed:

7DE+7CE

1. Performed on the side plate weld splice at cross beam side of segment.

7BW

This QA Inspector observed ZPMC welding personnel had commenced a Critical Weld Repair (CWR) on Seismic Performance Critical Material (SPCM) without an approved Critical Weld Repair procedure and prior to properly preparing the joint. The following information of incident is as followed: Weld joint is identified as SEG035C-022 which is joining the top flange (X43S) of longitudinal diaphragm identified as LD14B to floor beam web (X49B SPCM) identified as FB39A. This location is at panel point 50 cross beam side of segment. This QA Inspector issued an incident for today's work shift.

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



### Summary of Conversations:

Only general conversation was held between QA and 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 (150-0042-2372), who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Alaniz,Joe	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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