

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-002859**Date Inspected:** 05-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island**CWI Name:** See below**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:** Skin plates**Summary of Items Observed:**

The name of ABF Certified Welding Inspector (CWI) are Miss. Xie Yan, Mr. Wang Cheng Jun, Mr. Yang Yi Heng and Mr. Kong Xian Hui.

Submerged Arc Welding (SAW) process on longitudinal stiffener plate and skin plate (Tower Bay#1 and Bay#2): Caltrans QAI observed ZPMC welding operators performed semi-automatic SAW on the splice weld of ASTM 709 345 longitudinal stiffener plate numbered P503 to P503A with 60mm wall thickness, weld# SSD1-SA16A/G-44A, skin plate numbered P265 to SA179 with 45mm to 65mm wall thickness, weld # SSD1-SA179D/E-13, SSD1-SA179D/E-8 and SSD1-SA179D/E-24B (Bay#1), skin plate numbered P78 to P718 with 100mm wall thickness, weld # SSD1-SA180D/E-42B (Bay#1), skin plate numbered P609 to P1303 60mm wall thickness, weld # ESD1-SA21J/K-15B and ESD1-SA216A/K-14B (Bay#2), The weld designed is a double -V-groove with welding conducted in the in flat position (1G) with proper 4.8mm diameter wire feed electrode JW3 and flux/J1-B, made by China Company and completed with approximate five pass. The parameters used for SAW welding of splice weld was conducted in accordance with Caltrans approved WPS-B-T-2221-B-U3. The semi-automatic SAW was monitored and recorded by ZPMC QC and ABF Certified Welding Inspector (CWI). Based on Caltrans QAI observations, no discrepancies were noted.

Flux Cored Arc Welding (FCAW) welding process on longitudinal stiffener plate (Tower Bay#2): Caltrans QAI observed a welder was performing FCAW process on splice weld of longitudinal stiffener for numbered P382AB to P324A with 65mm wall thickness, weld# ESD1-SA107E/J-7B (Bay#2). The parameters used for FCAW process of splice welds were conducted in accordance with Caltrans approved WPS-B-T-2231-B-U3-F. The electrode being used is super cored 71.H with 0.14mm diameter made by China Company. The FCAW process was monitored and recorded by ZPMC QC Inspector and ABF CWI. Base on Caltrans observation, no discrepancies were noted.

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Fit-up and Shield Metal Arc Welding (SMAW) tack welding on splice weld of longitudinal stiffener plate (Tower Bay#1): Caltrans QAI observed ZPMC welders in process of fit up on longitudinal stiffener plate numbered P503A to P503B with 65mm wall thickness, P223A to P223B with 60mm wall thickness and P190A to P190B with 60mm wall thickness. All the of longitudinal stiffener plates have been connected and secured with the clamps after fit up process was completed and inspected by ZPMC QC inspector and ABF CWI inspector. Numerous 150mm length SMAW tack welds are evenly spaced around the skin plates bevel by approved welder. The parameters used for the SMAW tacks welding of the skins were conducted in accordance with Caltrans approved WPS. Based on Caltrans QAI observations, no discrepancies were noted.

Summary of Conversations:

As Note within the report 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 Wahbeh Mazen (818)292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
