

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-005855**Date Inspected:** 21-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** ZPMC and ABF**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:** SAS tower**Summary of Items Observed:**

Bay #10 South and North Tower Shop

North Tower Lift #1:-Caltrans QA Inspector observed four welders performed FCAW build up weld metal welding on stiffeners which located at exterior bottom tower of skin plate C and D. The buildup metal welding has been approved by Caltrans with file #CWR-00087. The metal buildup on skin plate C is 50mm to 60mm thick and skin plate D is 25mm to 30mm thick. Total 2 inner stiffeners have been completed on skin plate D and 2 inner stiffeners have been completed on skin plate C. Base on Caltrans observation, no discrepancies were noted.

North Tower Lift #1:-Caltrans QA Inspector observed eight welders performed FCAW root pass process on the interior double diaphragms of north tower lift #1. The interior double diaphragms are located at elevation 28m 33m, 43m and 47.6m. The FCAW root pass was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

South Tower Lift #2:-Caltrans QA Inspector observed two welders performed carbon arc gouging process on inner corner longitudinal seam weld that connected skin plate C and D. The gouging purpose is removed the indications that rejected by ZPMC UT test. The gouging weld area located at elevation 71m and 80.75m section. Base on Caltrans observation, no discrepancies were noted.

South Tower Lift #2:-Caltrans QA Inspector observed two welders performed grinding process on the fillet weld of fig lugs. The fig lugs are located at elevation 53m interior double diaphragm of south tower lift. The grinding process is removing the weld profiles that have been rejected by VT inspection. Base on Caltrans observation, no discrepancies were noted.

South Tower Lift #2:- Caltrans QA inspector observed two ZPMC welding operators performed semi-automatic SAW on outer corner longitudinal seam weld # SSD1-TL5B/L-2A that connected skin plate A and skin plate B of south tower lift #2. The weld designed is a double -V-groove with welding conducted in the in flat position (1G).

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The minimum preheat and maximum interpass temperature requirements for SAW longitudinal seam weld are 110C degree and 230 C degree. The semi-automatic SAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

Bay #11 East and West Tower Shop

East Tower Lift #2:- Caltrans QA inspector observed two ZPMC welding operators performed semi-automatic SAW on outer corner longitudinal seam weld # ESD1-TL7B/L-5A that connected skin plate A and skin plate B of east tower lift #2. The weld designed is a double -V-groove with welding conducted in the in flat position (1G). The minimum preheat and maximum interpass temperature requirements for SAW longitudinal seam weld are 110C degree and 230 C degree. The semi-automatic SAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

East Tower Lift #1:- Caltrans QA inspector observed two ZPMC welding operators performed FCAW root pass process on two inner corner longitudinal seam welds that connected skin plate B to C and skin plate C to A. The elevation is between 43m and 47.6m section. The minimum preheat and maximum interpass temperature requirements for SAW longitudinal seam weld are 110C degree and 230 C degree. The FCAW root pass was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

Summary of Conversations:

As noted 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 , who represents the Office of Structural Materials for your project.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
