

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-005863**Date Inspected:** 01-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**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

South tower lift #3:- Caltrans QA inspector performed final UT test on CJP welds of skin plate D for south tower lift #3. The weld numbers are SSD1-FDSA3-1A/C-1B, 2B and SSD1-FDSA3-1B/C-1B, 2B. The grease, rust, scale and other moisture have been removed and the welds grinded flush by ZPMC. Worker on test weld areas prior UT testing. During UT testing, QA Inspector used a 254mm range reflection has been calibrated on "A scan" digital display instrument GE USN 58L (SN#01WK8X), the angle beam search unit, is a angle wedge 70 degrees x 2.5MHz applying a source of shear waves, that passes through CJP welds for the detection of discontinuities. The distance and sensitivity of straight beam and angle beam are calibrated with the International Institute of Welding (IIW) ultrasonic reference block. The QA UT testing of weld areas appeared to be in compliance with the requirements of AWS D1.5 (2002) and Caltrans Special Provisions.

South tower lift#1:- Caltrans QA Inspector observed five welders performed FCAW process on CJP weld for corner diagonal stiffener that connected skin plate C to D. The welding located at elevation 9m, 13m, 15m, 18m and 38m. The minimum preheat and maximum interpass temperature requirements for FCAW CJP weld are 110C degree and 230 C degree. The FCAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

North tower lift#1:- Caltrans QA Inspector observed two welders performed SMAW process on inner corner longitudinal seam weld that connected skin plate C to D. The weld number is NDS1-A112B/H-2A and NSD1-A112B/H-1B. The welding located at elevation 28m to 33m. The minimum preheat and maximum interpass temperature requirements for SMAW longitudinal seam weld are 110C degree and 230 C degree. The SMAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

WELDING INSPECTION REPORT

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Bay #11 East and West Tower Shop

East Tower Lift #2:-Caltrans QA Inspector observed five ZPMC workers performed grinding process on the fig lug welds and diaphragm welds. The fig lug welds and diaphragm welds are located at elevation 53m to 80.75m interior diaphragm of east tower lift #2. The grinding process is removing the weld profiles that have been rejected by VT inspection. Base on Caltrans observation, no discrepancies were noted.

West tower lift#1:- Caltrans QA Inspector observed two welders performed FCAW process on inner corner longitudinal seam weld that connected skin plate A to B. The welding located at elevation 18m, 38m and 43m. The minimum preheat and maximum interpass temperature requirements for SMAW longitudinal seam weld are 110C degree and 230 C degree. The FCAW 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
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Reviewed By:	Clifford,William	QA Reviewer
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