

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-011144**Date Inspected:** 27-Dec-2009**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**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:** OBG**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Wai Pau, was present during the times noted above for observations relative to the work being performed.

Bay #7

Traveler rail: - Caltrans QA inspector observed four ZPMC welders performed FCAW process on the flange to web plate of traveler rail #22TR3-001, 22TR3-002, 22TR3-009, 22TR2-001 and 22TR4-002. This 22TR type component has been changed design to all CJP weld along on both side of top and bottom flanges. All the welding areas have been pre-heating prior FCAW welding. The FCAW process were monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA Inspector observations, no discrepancies were noted.

Bay #6

OBG Side Plate: - Caltrans QA inspector performed final QA dry MT testing on fillet welds of stiffeners for three OBG side plates. The ZPMC inspection request number is 004940. The OBG side plates and weld ID are -32-017-001~012, DP3027-001~014 and DP3035-017-001~014. The fillet welds for dry MT testing have been accepted by ZPMC prior Caltrans QA inspection. Base on Caltrans MT inspection, the welds appeared to be in compliance with requirements of AWS D1.5 2002 and Caltrans contract documents. Three green tags #10591, 10597 and 10600 have been signed on these three OBG side plates by ABF after Caltrans completed the MT testing.

Tower strut: - Caltrans QA Inspector performed QA final dry MT testing on the CJP welds and fillet welds of tower strut. The ZPMC inspection request number is 004940. The strut welds ID are WD1-A305-77M-1-1A/B,

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2A/B, 7A/B, 8A/B, 9A/B and 10~54. All the CJP and fillet welds have been accepted by ZPMC and ABF prior Caltrans QA inspection. Base on Caltrans VT and MT testing, the CJP welds and fillet welds appeared to be in compliance with requirements of AWS D1.5 2002 and Caltrans contract documents. A green tag # 11679 has been signed on this tower strut by ABF after Caltrans completed the testing.

Bay#5

Traveler rail: - Caltrans QA inspector observed five ZPMC welders performed FCAW build up weld metal (buttering) process on the flange of traveler rail #11TR6-001, 11TR7-001, 10TR3-014, 11TR1-027, 10TR1-017, 11TR1-030 and 11TR1-028. The buttering areas are located both ends of top and bottom flanges. The buttering size is along the both edge ends of flanges with 10mm width. All of buttering areas have been pre heating prior FCAW welding. The FCAW process were monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA Inspector observations, no discrepancies were noted.

Traveler rails: - Caltrans QA inspector observed a welder performed carbon arc back gouging process on the flange to web plate of traveler rail. A back gouging is on both side of flange to web of two traveler rails # 11TR1-030 and 11TR1-024. The back gouging areas have been rejected by UT testing. Total 11 spots and an approximately 5mm~9mm sound wall thick have been gouged out. The back gouging area has been re-bevel by grinding and the beveled surface is entirely free of the scale, traces of oxide films and other contaminants prior welding. Base on Caltrans observation, no discrepancies were noted.

Traveler rail: - Caltrans QA inspector observed two ZPMC welders performed FCAW repair weld process on the flange to web of traveler rail # 11TR5-003 and 11TR1-009. The repair areas are located at top and bottom flanges to web and total fifteen spots and length for 50mm to 150mm. All of repair areas have been pre heating prior FCAW repair welding. The FCAW repair process were monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA Inspector observations, no discrepancies were noted.

Bike path: - Caltrans QA Inspector observed two welders performed FCAW process on CJP welds for exterior plates of bike path cantilever beam. The bike path cantilever beam ID is BK-001-044, BK-001-045 and BK-001-046. During observation, ABF QC informed Caltrans QA inspector that between the end plate and exterior plates of bike path cantilever beam has been changed use PJP weld in lieu of CJP weld but the weld joint remained with backing bar and the RFI file number is RFI # ABF-RFI-001933-R02 The FCAW welding process were monitored and recorded by ZPMC and ABF QC inspector. Base on Caltrans QAI observation, no discrepancies were noted.

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

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Summary of Conversations:

As notes within 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 Eric Tsang 15000422372 , who represents the Office of Structural Materials for your project.

Inspected By: Pau,Wai

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer
