

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022756**Date Inspected:** 06-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**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:** OBG and Tower Components**Summary of Items Observed:**

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

Bay 10

This QA Inspector randomly observed the following work in progress in the Bay 10:

Heat straightening of 37TR2, 29TR1 located on PCMK OBG traveler rail. QC was identified as ZPMC CWI Yu Dong Ping (QC1). Assisting QC1 at this location and appearing to be monitoring the heat straightening operation and recording data was ZPMC QC Yu Zhi Lai (QCA1), who was not a CWI. Heat treatment variables recorded by QCA1 appeared to comply with ZPMC document HSR1(B)-10186 as presented to this QA Inspector and verbally identified by QCA1.

SMAW welding of weld joints BK014A5-001-007, BK014A3-001-009 located on PCMK OBG bike path. Welder was identified as 040392. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2113-TC-U4b as verbally identified by QCA1.

Fit-up and SMAW tack welding of weld joints BK014A8-001-072, 073 located on PCMK OBG bike path. Welder was identified as 054547. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2212 as verbally identified by QCA1.

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## WELDING INSPECTION REPORT

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Bay 11

This QA Inspector randomly observed the following work in progress in the Bay 11:

SMAW repair welding of weld joint 32TR1-001-009 located on PCMK OBG traveler rail. Welders were identified as 046769, 202354. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-345-SMAW-2G(2F)-repair as displayed on ZPMC Weld Repair Report B-WR20595 as presented to this QA Inspector and verbally identified by QCA1.

SMAW repair welding of weld joints 25TR1-001-016, 34TR1-001-009 located on PCMK OBG traveler rail. Welder was identified as 041713. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-345-SMAW-2G(2F)-repair as displayed on ZPMC Weld Repair Reports B-WR20599/B-WR20598, respectively, as presented to this QA Inspector and verbally identified by QC1. See photos below of ZPMC Report of Ultrasonic Examination #UT-20450 showing multiple indications recorded in weld joints 25TR1-001-016, 34TR1-001-009 which was attached to ZPMC Weld Repair Reports B-WR20599/B-WR20598, also shown below.

SMAW welding of weld joint 33TR1-001-013 located on PCMK OBG traveler rail. Welder was identified as 046704. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-B-P-2212-TC-U5b as verbally identified by QC1.

SMAW welding of weld joints SSD1-DPSA6-5-18~33 located on PCMK tower, lift 6. Welder was identified as 040611. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-B-P-2212 as verbally identified by QC1.

OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

FCAW welding of weld joint SEG3007Q-164 located on PCMK OBG Segment 13AE. Welder was identified as 050242. QC was identified as ABF CWI Bao Qian (QC2). Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Zhan Hai Feng (QCA2), who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2231-ESAB as verbally identified by QCA2.

SMAW repair welding of weld joints SEG3007AH-141, 142, 144, 145, 155 located on PCMK OBG Segment 13AE. Welder was identified as 068924. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-345-SMAW-4G(4F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20568 as presented to this QA Inspector and verbally identified by QCA2.

SMAW repair welding of weld joint SEG3007AH-112 located on PCMK OBG Segment 13AE. Welder was identified as 200113. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-345-SMAW-4G(4F)-FCM-repair-1 as displayed in QCA2's handbook as presented

