

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023745**Date Inspected:** 10-May-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 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.

Heavy Dock

This QA Inspector randomly observed the following work in progress onboard the ship moored at the end of the Heavy Dock:

ZPMC workers drilled hold-downs attaching to the four lift 6 tower sections. ZPMC workers were performing touch-up painting of various parts on the deck of the ship as well as various areas of OBG Segments 12E and 12W.

ZPMC workers were also installing catwalks in Segments 12E and 12W. ZPMC workers carbon arc gouged welds located on OBG Segment 12W, bottom plate I-ribs to floor beam at panel point 117, counterweight side. No welding was observed.

OBG Trial Assembly Area

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

FCAW welding of weld joints SEG3007B-230, 232, 233, 234, 236 located on PCMK OBG 13AE. Welder was identified as 055564. QC was identified as ZPMC CWI Sha Zhi (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Wang Xiang Pin (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2233-ESAB as verbally identified by QCA1.

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FCAW welding of weld joints SEG3007C-103, 104, 109, 110, 115, 116, 107, 113, 119, 125, 131 located on PCMK OBG 13AE. Welder was identified as 052696. 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-2132-ESAB and WPS-B-T-2233-ESAB as verbally identified by QCA1.

FCAW welding of weld joints SEG3007H-097, 102, 107, 112, 117, 122 located on PCMK OBG 13BE. Welder was identified as 055491. 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-2233-ESAB as verbally identified by QCA1.

FCAW welding of weld joints SEG3007J-274, 275, 289, 290, 304 located on PCMK OBG 13BE. Welder was identified as 050242. 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-2132-ESAB as verbally identified by QCA1.

FCAW welding of weld joint SEG3020B-055 located on PCMK OBG 14W. Welder was identified as 037705. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Shen Jian Bo (QCA2), who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2232-ESAB as verbally identified by QCA2.

FCAW welding of weld joints SEG3020M-222, 223; SEG3020W-222, 223 located on PCMK OBG 14W. Welder was identified as 070101. QC was identified as QC1. Assisting QC1 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-B-T-2231-ESAB and WPS-B-T-2232-ESAB as verbally identified by QCA2. See photos below of the 4 welds in their 2 locations.

SMAW repair welding of weld joint SEG3019AA-003 located on PCMK OBG 14E. Welder was identified as 044779. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Xie Ming Feng (QCA3), who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-345-SMAW-2G(2F)-repair-1 as displayed on ZPMC Weld Repair Report B-WR20923 as presented to this QA Inspector and verbally identified by QCA3.

SMAW repair welding of weld joints SEG3019Q-00226, 232, 238 located on PCMK OBG 14E. Welder was identified as 215553. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-345-SMAW-2G(2F)-repair-1 as displayed on ZPMC Weld Repair Report B-WR20923 as presented to this QA Inspector and verbally identified by QCA3.

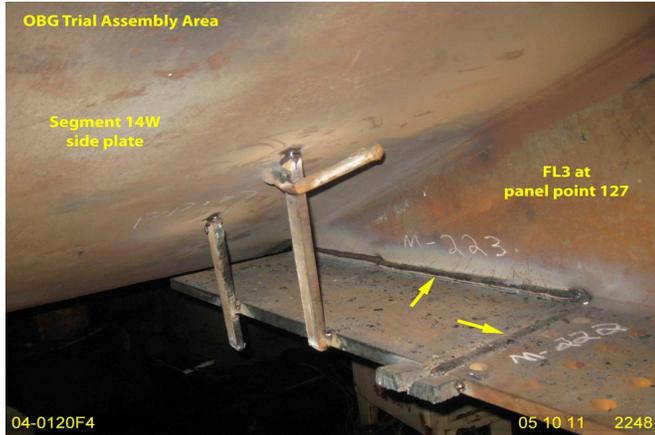
SMAW repair welding of weld joint SEG3019K-008 located on PCMK OBG 14E. Welder was identified as 044779. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-345-SMAW-2G(2F)-repair-1 as displayed on ZPMC Weld Repair Report B-WR20937 as

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presented to this QA Inspector and verbally identified by QCA3.

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



Summary of Conversations:

As noted 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 James Devey 15000026784, who represents the Office of Structural Materials for your project.

Inspected By: Goulet, George

Quality Assurance Inspector

Reviewed By: Riley, Ken

QA Reviewer