

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-010954**Date Inspected:** 02-Jan-2010**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:** Tower and 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.

Bay 10

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

FCAW repair welding of weld joint NSTL4-SPSA4-15-1A located inside PCMK north tower, lift 4, skins B/C corner, inside splice plate. Welder was identified as 053869. ZPMC QC was identified as CWI Wang Chuan Qing (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC Gao Zhi Chun, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-345-FCAW-1G(1F)-repair as listed on the ZPMC weld repair report #T-WR2796 presented to this QA Inspector by QC Gao Zhi Chun.

FCAW welding of weld joint corner assemblies to be located inside various towers, lift 4, skins B/C, C/D, A/E corners, at double diaphragms. Welders were identified as 0540169, 052075. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC Wang Hao, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2132. Also at this location and appearing to be monitoring the welding operation was ABF Representative Li Nan.

SMAW repair welding of weld joint SSSL4-1B/L-5A located outside PCMK south tower, lift 4, skin B to skin C.

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Welder was identified as 056200. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-345-SMAW-4G(4F)-repair as listed on the unnumbered ZPMC weld repair report presented to this QA Inspector by QC1.

Bay 11

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

Drilling previously pilot-scored holes into PCMK west tower, lifts 2 and 3, skin plates B and C at the lift 2/3 joint, from the outside in. No template was being used.

SAW welding of weld joint WSTL4-2B/L-59A located outside PCMK west tower, lift 4, skin A to skin E, between approximately 138M and 140M elevation. Welder was identified as 202756. ZPMC QC was identified as CWI Liu Xiaozhong (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC Shao Hailang, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2221-C-L2a-S. Also at this location and appearing to be monitoring the welding operation were ABF Representatives Luo Lai Quan and Wang Liang Hua.

FCAW welding of weld joint WSTL4-2B/L-59A located outside PCMK west tower, lift 4, skin A to skin E, between approximately 125M and 127M elevation. Welder was identified as 053486. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC Shao Hailang, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2221-C-L2a-S. Also at this location and appearing to be monitoring the welding operation were ABF Representatives Luo Lai Quan and Wang Liang Hua.

Blast Shop #1

This QA Inspector and Caltrans QA Inspector Paul Dawson performed random visual inspections of the upper interior areas of OBG Segment 8BW between panel point 66 to panel point 67 as per ZPMC request number 2423, Document No. PR008, Rev. 03. ZPMC had recently completed grit blasting of these areas and the steel surfaces are now mostly free of rust oxide and other contaminants that had previously obscured portions of the plate and weld surfaces. This QA Inspector visually observed approximately 50 locations that required grinding to resolve visual weld spatter, arc strikes, shallow nicks, scrapes, and other minor surface rejections. The areas were marked with colored chalk and ZPMC had several workers using grinders to remove the visually unacceptable areas and ZPMC had assigned a magnetic particle test (MT) inspector to perform MT of the arc strike removal areas. Three welds were also observed to be incomplete. These areas were marked for weld repair.

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

Summary of Conversations:

No relevant conversations.

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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

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Inspected By:	Goulet, George	Quality Assurance Inspector
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Reviewed By:	Dawson, Paul	QA Reviewer
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