

**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-015965**Date Inspected:** 23-Jul-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 11

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

SMAW welding of temporary alignment beam to bottom of exterior connection plates located on PCMK west tower, lift 5, skin A. Welder was identified as 040614. QC was identified at ZPMC CWI Liu Yang (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Mao Bin Bin (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-4112. Also at this location and appearing to be monitoring the welding operation was ABF Representative Cui Zheng Hua.

SMAW welding of weld joint ESD1-TL5-2E/F-8B located on PCMK east tower, lift 5, internal connection plates. Alternating welders were identified as 046769, 046709. QC was identified at QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U5b. Also at this location and appearing to be monitoring the welding operation was ABF Representative Wang Zhang Hua.

SMAW welding of weld joint ESD1-TL5-2F/F-8A located on PCMK east tower, lift 5, internal connection plates. Alternating welders were identified as 044541, 044551. QC was identified at QC1. Assisting QC1 at this location

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and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U5b. Also at this location and appearing to be monitoring the welding operation was ABF Representative Wang Zhang Hua.

### Bay 10

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

SMAW welding of weld joint SSD1-TL5-1E-F-11B located on PCMK south tower, lift 5, internal connection plates. Welder was identified as 052493. QC was identified at QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yu Zhi Lai (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U5b. Also at this location and appearing to be monitoring the welding operation was ABF Representative Cui Zheng Hua.

SMAW welding of weld joint SSD1-TL5-1E-F-5A located on PCMK south tower, lift 5, internal connection plates. Welder was identified as 056200. QC was identified at QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U5b. Also at this location and appearing to be monitoring the welding operation was ABF Representative Cui Zheng Hua.

SMAW welding of weld joint SSD1-TL5-1F-F-18A located on PCMK south tower, lift 5, internal connection plates. Welder was identified as 040582. QC was identified at QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U5b. Also at this location and appearing to be monitoring the welding operation was ABF Representative Cui Zheng Hua.

SMAW welding of weld joint SSD1-TL5-1F-F-24B located on PCMK south tower, lift 5, internal connection plates. Welder was identified as 052930. QC was identified at QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U5b. Also at this location and appearing to be monitoring the welding operation was ABF Representative Cui Zheng Hua.

### Bay 11

This QA Inspector proceeded back to Bay 11 in response to ZPMC Inspection Notification #06268 for magnetic particle testing (MT) inspection of the following:

This QA Inspector performed random visual testing (VT) in preparation for MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. The member was identified as SP3067-001. This QA Inspector observed several copes that were jagged, gouged, and were covered with weld spatter. See photos below. This QA Inspector informed ZPMC CAWI Liu Dao Feng (CAWI) and showed CAWI the obvious issues. This QA Inspector rejected the VT due to the above noted issues and the MT was not performed.

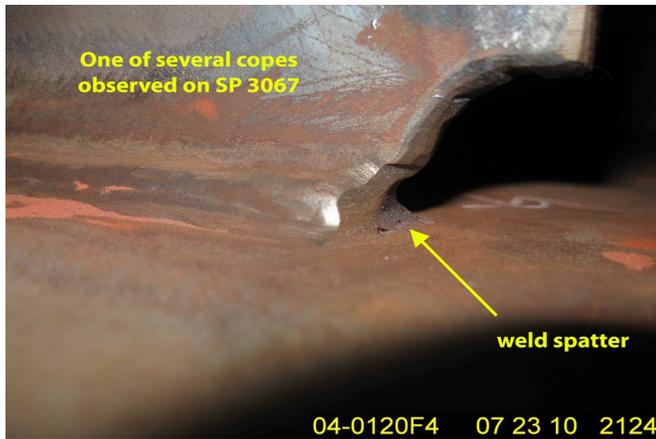
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## Summary of Conversations:

As 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 Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Goulet, George

Quality Assurance Inspector

**Reviewed By:** Dawson, Paul

QA Reviewer

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