

**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-016122**Date Inspected:** 04-Aug-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 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 weld joint WSD1-SPSA5-17-1A located on PCMK west tower, lift 5, splice plate. Welder was identified as 054460. QC was identified as ZPMC CWI Xu Le Feng (QC1). Welding variables recorded by QC1 appeared to comply with WPS-B-T-3211-TC-U5b-1.

SMAW welding of weld joint WSD1-TL5-4B/F-17B located on PCMK west tower, lift 5, internal connection plates. Alternating welders were identified as 068924, 066416. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Zhao mao Mao (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 Cui Zheng Hua.

SMAW welding of weld joint WSD1-TL5-4B/F-23 located on PCMK west tower, lift 5, internal connection plates.

Alternating welders were identified as 067588, 066326. QC was identified as 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-U4c. Also at this location and

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appearing to be monitoring the welding operation was ABF Representative Cui Zheng Hua.

SMAW welding of weld joint WSD1-TL5-4B/F-18B located on PCMK west tower, lift 5, internal connection plates. Alternating welders were identified as 066261, 067520. QC was identified as 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 Cui Zheng Hua.

SMAW welding of weld joints WSD1-TL5-4B/F-28B, 29B located on PCMK west tower, lift 5, internal connection plates. Alternating welders were identified as 070432, 066296. QC was identified as 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 Cui Zheng Hua.

SMAW welding of weld joint WSD1-TL5-4B/F-25B located on PCMK west tower, lift 5, internal connection plates. Alternating welders were identified as 070432, 066236. QC was identified as 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 Cui Zheng Hua.

SMAW welding of weld joint ESD1-TL5-4B/F-12B located on PCMK east tower, lift 5, internal connection plates. Alternating welders were identified as 040690, 202100. QC was identified as 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 Cui Zheng Hua.

SMAW welding of weld joint ESD1-TL5-4F/F-12B located on PCMK east tower, lift 5, internal connection plates. Welder was identified as 040614. QC was identified as 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 Cui Zheng Hua.

### Heavy Dock

This QA Inspector randomly observed the following work being performed on the Heavy Dock:

This QA Inspector observed no apparent welding related work was being performed on the Heavy Dock. All 4 tower lift's 3 were connected and positioned on a base pedestal. East tower, lift 2 was positioned on another base pedestal. Tower lift's 2, north and west were positioned horizontally on stanchions at the end of the heavy dock. A ZPMC 1600 ton floating crane was rigged to the top of south tower, lift 2, hanging vertically, with the bottom of south tower, lift 2 touching on dunnage on the deck of the dock. ZPMC personnel were working at the bottom of south tower, lift 2 appearing to be removing temporarily bolted splice plate assemblies. A ZPMC painter was observed spray applying what appeared to be a cover coat to selected areas of north tower, lift 2, skin's B, C, and D in a moderate wind with no wind screen in the area. See photo below. Later upon returning to the heavy dock early in the morning of 8/5/2010, this QA Inspector observed south tower positioned horizontally on stanchions on

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deck. ZPMC personnel were working at the top of east tower, lift 2 appearing to be working with the floating crane rigging now hanging overhead. ABF Representative Kang Li informed this QA Inspector that no welding work was being performed during this night shift.

### Bay 10

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

SMAW welding of weld joint SSD1-TL5-1B-F-14 located on PCMK south tower, lift 5, internal connection plates.

Alternating welders were identified as 057266, 050289, 500363. QC was identified at QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Li Peng Fei (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U4c. Also at this location and appearing to be monitoring the welding operation was ABF Representative Chi Zheng Hua.

SMAW welding of weld joint NSD1-TL5-3F-F-25 located on PCMK north tower, lift 5, internal connection plates.

Alternating welders were identified as 066418, 066763. 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-3313-TC-P5. Also at this location and appearing to be monitoring the welding operation was ABF Representative Chi Zheng Hua.

SMAW welding of weld joint NSD1-TL5-3F-F-26 located on PCMK north tower, lift 5, internal connection plates.

Alternating welders were identified as 037998, 037780. 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-3313-TC-P5. Also at this location and appearing to be monitoring the welding operation was ABF Representative Chi Zheng Hua.

SMAW welding of weld joint NSD1-TL5-3F-F-22A located on PCMK north tower, lift 5, internal connection plates. Welder was identified as 066418. 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 Chi Zheng Hua.

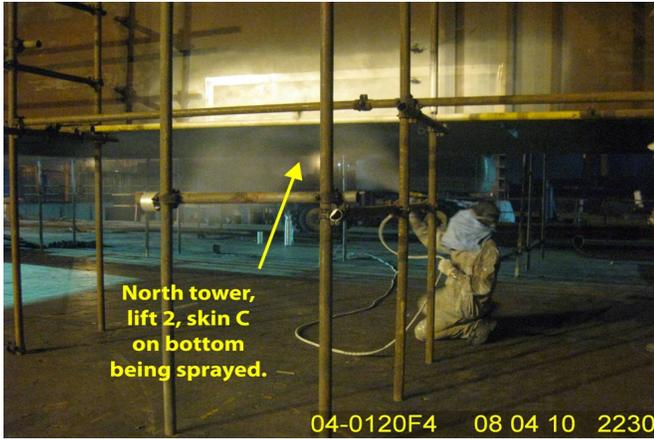
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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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 Micheal Ng, 159-2184-5703, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Goulet, George	Quality Assurance Inspector
<b>Reviewed By:</b>	Dawson, Paul	QA Reviewer

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