

**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-012688**Date Inspected:** 17-Mar-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 no apparent welding related work being performed in Bay 10.

Bay 11

This QA Inspector randomly observed no apparent welding related work being performed in Bay 11.

Heavy Dock

This QA Inspector randomly observed the following work in progress on the Heavy Dock:

FCAW welding of weld joint NSD1-SA76F/H-39 located outside PCMK north tower, lift 1 base, skin E, shear plate stiffener to connection plate. Welder was identified as 053869. ZPMC QC was identified as ZPMC CWI You Qi Guo (QC1). The welding variables recorded by QC1 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations were ABF Representative Li Ke Wei.

FCAW welding of weld joints NSD1-SA76F/H-40, 57 located outside PCMK north tower, lift 1 base, skin E, shear plate stiffener to connection plate. Welder was identified as 040533. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this

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location and appearing to be monitoring the welding related operations were ABF Representative Li Ke Wei.

FCAW welding of weld joint NSD1-SA11-20 located outside PCMK north tower, lift 1 base, skin B, shear plate stiffener to connection plate. Welder was identified as 057244. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations were ABF Representative Li Ke Wei.

FCAW welding of weld joint NSD1-SA11-26 located outside PCMK north tower, lift 1 base, skin B, shear plate stiffener to connection plate. Welder was identified as 054069. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations were ABF Representative Li Ke Wei.

FCAW welding of weld joint WSD1-SA225F/H-34 located outside PCMK west tower, lift 1 base, skin E, shear plate stiffener to connection plate. Welder was identified as 066481. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2333-TC-P4-F. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC He Gen, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations were ABF Representative Li Ke Wei.

FCAW welding of weld joint WSD1-SA225F/H-50 located outside PCMK west tower, lift 1 base, skin E, shear plate stiffener to connection plate. Welder was identified as 068493. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC He Gen, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations were ABF Representative Li Ke Wei.

FCAW welding of weld joint WSD1-SA279-31 located outside PCMK west tower, lift 1 base, skin B, shear plate stiffener to connection plate. Welder was identified as 066484. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC He Gen, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations were ABF Representative Li Ke Wei.

FCAW welding of weld joints WSD1-SA294F/G-33, 48 located outside PCMK west tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 066484. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC He Gen, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations were ABF Representative Li Ke Wei.

FCAW welding of weld joint ESD1-SA227F/H-5 located outside PCMK east tower, lift 1 base, skin E, shear plate stiffener to connection plate. Welder was identified as 070022. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC He Gen, who was

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not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2333-TC-P4-F.

Also present at this location and appearing to be monitoring the welding related operations were ABF Representative Li Ke Wei.

FCAW welding of weld joints ESD1-SA294F/G-31, 64 located outside PCMK east tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 070022. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC He Gen, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations were ABF Representative Li Ke Wei.

The tower access elevator was not manned between 2020 hours and 2130 hours and it appeared that no work was being performed above the base level of either of the towers. ABF Representative Li Ke Wei informed this QA Inspector that no work was being performed at any of the upper levels of the lift1/lift 2 tower assemblies.

OBG segments 5E, 5W, and CB4 were located on the ship moored to the foot of the heavy dock. Although much work was being performed around the segments on stanchions, etc., no apparent welding related work was observed being performed on either OBG segments 5E, 5W, or CB4.

### OBG Trial Assembly Area

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

No apparent welding related work was observed being performed in the OBG Trial Assembly Area. However, the following was observed:

ZPMC workers were performing sand blasting inside both FL3 areas on segments 6AW and 6CW.

ZPMC workers were spraying zinc-based coating in somewhere on OBG section 6CE, but this QA Inspector could not determine exactly where.

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 Skyler Guest, 150-0042-2360, 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