

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017685**Date Inspected:** 20-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** ShangHai, China**CWI Name:** Liu fa Wen**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**Summary of Items Observed:**

Summary of Items Observed: On this date Caltrans OSM Quality Assurance(QA) Inspector, DJ Shin was present during the times noted above for observations relative to the work being performed.

## Bay 1

This QA Inspector observed the following work in progress:

Heat straightening of PCMK, 20TR-032 under approved Heat Straightening procedure, HSR (B)-362 dated 5/28/2010. The in process temperature at the time of this observation was 470°C. The ZPMC QC was identified as Ai Wei. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was between 30mm~80mm.

This QA Inspector during a random observation in Bay 1 observed Flux Cored Arc Welding (FCAW) welding in progress. ZPMC QC was identified as Ai Wei who was documenting the welding in process, which appeared to comply with the WPS-B-T-2232-3. Listed below are the locations that were identified by this QA inspector.

PCMK: E2-SB1-008

Welder: 216872

PCMK: E2-SB5-004

Welder: 216872

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This QA Inspector during a random observation in Bay 1 observed Flux Cored Arc Welding (FCAW) repair welding of weld joint 009 located on 20TR2-032. ZPMC had the welding repair report number B-WR 14303. The areas that were being repaired were rejected by ZPMC UT. The ZPMC Welder is identified as 203710 and the ZPMC QC is identified as Ai Wei. The welding variables recorded by QC appeared to comply with WPS-345-FCAW-1G (1F)-repair-1.

### Bay2

Heat straightening of PCMK, E5-SB1 under approved Heat Straightening procedure, HSR1 (B)-9412. The in process temperature at the time of this observation was 400°C. The ZPMC QC was identified as Ai Wei. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 6mm.

This QA Inspector during a random observation in Bay 2 observed Flux Cored Arc Welding (FCAW) welding in progress. ZPMC QC was identified as Ai Wei who was documenting the welding in process, which appeared to comply with the WPS-B-T-2132-3. Listed below are the locations that were identified by this QA inspector.

PCMK: FB3317-001-087/088

Welder: 216872

PCMK: E5-SB1-021-032~043

Welder: 201583

PCMK: E5-SB1-001-032~043

Welder: 216872

PCMK: E5-SB1-001-156~163

Welder: 062708

WPS-B-T-2133

This QA Inspector observed the following work in progress for Bay 2. Submerged Arc Welding (SAW) welding of weld joint 003 located on PCMK LD3051-001. Welder was identified as 207237. ZPMC QC is identified as Ai Wei. The welding variables recorded by QC appeared to comply with WPS-B-T-2221-B-L2C-S-2.

PCMK: LD3051-001-008

Welder: 250050

WPS-B-T-2221-B-L2C-S-2

### Bay 3

This QA Inspector during a random observation in Bay 3 observed Flux Cored Arc Welding (FCAW) welding in progress. ZPMC QC was identified as Zhang Ya Xu who was documenting the welding in process, which appeared to comply with the WPS-B-T-2132-3. Listed below are the locations that were identified by this QA inspector.

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PCMK: FB3265-001-112,113,121,122,119 and 120

Welder: 217805

PCMK: FB3260-001-065 and 066

Welder: 055491

PCMK: FB3260-001-087 and 088

Welder: 206623

### Bay 6

This QA Inspector observed the following work in progress for Bay 6. Submerged Arc Welding (SAW) welding of weld joint 007 located on PCMK CB3003B-019. Welder was identified as 054458. ZPMC QC was identified as Zhang Zhi Wei. The welding variables recorded by QC appeared to comply with WPS-B-T-2221-B-L2C-S-2.

This QA Inspector during a random observation in Bay 6 observed Flux Cored Arc Welding (FCAW) welding in progress. ZPMC QC was identified as Ai Wei who was documenting the welding in process, which appeared to comply with the WPS-B-T-2132-3. Listed below are the locations that were identified by this QA inspector.

PCMK: CB3002K-003-033 and 034

Welder: 217185

PCMK: FB4107A-001-040

Welder: 204342

WPS-B-T-2233-TC-U4b-F

PCMK: FB4104-001-066

Welder: 217185

WPS-B-T-2233-TC-U4b-F

### Bay 7

This QA Inspector during a random observation in Bay 7 observed Flux Cored Arc Welding (FCAW) welding in progress. ZPMC QC was identified as Xu Hei Yong who was documenting the welding in process, which appeared to comply with the WPS-B-T-2132-3. Listed below are the locations that were identified by this QA inspector.

PCMK: W2-SB1H-003-126~131

Welder: 215689

PCMK: W2-SB1A-007-20~25

Welder: 2205326

PCMK: W2-SB1-027-126~131

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Welder: 051246

PCMK: W2-SB1-018-126~131

Welder: 248625

PCMK: FB3242-001-001,002,029 and 030

Welder: 062447

PCMK: SA3078-006-002

Welder: 053609

WPS-B-T-2333-C-P2-F

PCMK: SW-SB1G-006~050

Welder: 049769

WPS-B-P-2211-B-U2

Bay 8

This QA Inspector during a random observation in Bay 8 observed Flux Cored Arc Welding (FCAW) welding in progress. ZPMC QC was identified as Feng Ya Jun who was documenting the welding in process, which appeared to comply with the WPS-B-T2232-TC-U4c-F. Listed below are the locations that were identified by this QA inspector.

PCMK: BK004A1-053

Welder: 066421

PCMK: BK004A1-061-043

Welder: 040671

This QA Inspector during a random observation in Bay 8 observed Shield Metal Arc Welding (SMAW) repair welding of weld joint 009 located on PCMK BK004A1-090 with repair report No B-WR15191. The areas that were being repaired were rejected by ZPMC UT. The ZPMC Welder was identified as 045148 ZPMC QC is identified as Feng Ya Jun. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G (4F)-repair.

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

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## 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 Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Shin,DJ	Quality Assurance Inspector
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<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer
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