DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-019887
Date Inspected: 30-Dec-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 1900
OSM Departure Time: 700
Location: Shanghai, China

CWI Name: See below

Inspected CWI report:	☑ Yes	☐ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☐ Yes	☑ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ 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:

On this date Caltrans OSM Quality Assurance (QA) Inspector, Kelly Leavitt, was present during the times noted above for observations relative to the work being performed.

This QA Inspector observed the following work in progress:

Bay 2
This QA Inspector observed the following work in progress for Bay 2.
ZPMC was using the Shielded Metal Arc Welding (SMAW) process.
ZPMC QC is identified as Zhu Jun.
Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).
Listed below are the locations that were identified by this QA Inspector.

Component; OBG
PCMK: AP3032-001
Weld No: 009,464,550,553,597,643,691,740,835,836,885,
Welders: 066002
Critical Weld Repair No. B-CWR-2616
WPS-345-SMAW-2G(2F)-FMC-Repair

Bay 3
Heat straightening of PCMK, 20TR-033 under approved Heat Straightening procedure, HSR1 (B)-362. The in

process temperature was approximately 250°C using a temperature indicating marker (Tempstik). The ZPMC QC was identified as Zhu Jun. 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 80mm.

Heat straightening of PCMK, 20TR-038 under approved Heat Straightening procedure, HSR1 (B)-8658. The in process temperature was approximately 250°C using a temperature indicating marker (Tempstik). The ZPMC QC was identified as Zhu Jun. 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 35mm.

Bay 8
This Caltrans QA Inspector observed at random intervals ZPMC performing grinding of welds located in Bike Path, BK004A6-057 at various locations due to contour grinding and visual indications as identified by ZPMC QC Inspectors.

Bay 10
This QA Inspector observed the following work in progress for Bay 10.
ZPMC was using the Shielded Metal Arc Welding (SMAW) process.
ZPMC QC is identified as Li Peng Fei.
Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).
Listed below are the locations that were identified by this QA Inspector.

Component; Tower Lift 6, “Tower Head” (see photo below)
PCMK: GGL-1207-1571-1
Weld No: fit up
Welder: 057239
WPS-B-T-2213

This Caltrans QA Inspector observed at random intervals ZPMC performing grinding of welds located in Bike Path, BK004A6-032 at various locations due to removal of temporary attachments and contour grinding of visual indications as identified by ZPMC QC Inspectors. (See photo below)

This Caltrans QA Inspector observed heat straightening of PCMK, SA3121A under approved Heat Straightening procedure, HSR1 (B)-9991. The in process temperature was approximately 250°C using a temperature indicating marker (Tempstik). The ZPMC QC was identified as Li Peng Fei. The approved HSR procedure stated that a maximum temperature of 600°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 4mm.

Heat straightening of PCMK, SA3110C under approved Heat Straightening procedure, HSR1 (B)-9995. The in process temperature was approximately 250°C using a temperature indicating marker (Tempstik). The ZPMC QC was identified as Li Peng Fei. The approved HSR procedure stated that a maximum temperature of 600°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 4mm.

Heat straightening of PCMK, SA3149A, SA3149B and SA3149C under approved Heat Straightening procedure, HSR1 (B)-9996. The in process temperature was approximately 250°C using a temperature indicating marker (Tempstik). The ZPMC QC was identified as Li Peng Fei. The approved HSR procedure stated that a maximum temperature of 600°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 15mm.

Heat straightening of PCMK, SA3047C and SA3047D under approved Heat Straightening procedure, HSR1 (B)-9992. The in process temperature was approximately 250°C using a temperature indicating marker (Tempstik). The ZPMC QC was identified as Li Peng Fei. The approved HSR procedure stated that a maximum temperature of 600°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 15mm.

Bay 11
This QA Inspector observed the following work in progress for Bay 11.
ZPMC was using the Shielded Metal Arc Welding (SMAW) process.
ZPMC QC is identified as Mao Bin Bin.
Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).
Listed below are the locations that were identified by this QA Inspector.

Component; Bike Path
PCMK: BK005ASD1-003
Weld No: 001~004, 022~027
Welders: 010655, 046769
WPS-B-T-2211-TC-U4C

Component; West Tower lift 5
PCMK: GTSA5-C/G
Weld No: 009,010,011,016,015
Welders: 202338, 140610
WPS-B-T-4313-TC-P4-1

Component; North Tower lift 5
PCMK: GTSA5-C/G
Weld No: 024,023,022,049,050
Welders: 040582, 040581
WPS-B-T-4114

This Caltrans QA Inspector observed ZPMC performing match drilling in South and East Tower Lift 5, connection plates. (see photo below)

Bay 28
This QA Inspector observed the following work in progress for Bay 28.
ZPMC was using the Flux Core Arc Welding (FCAW) process.

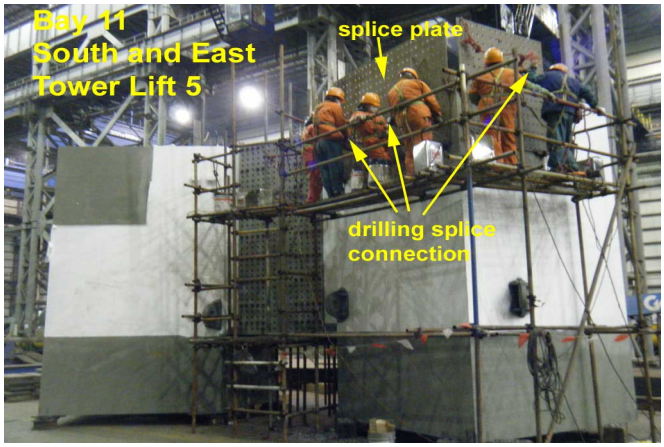
ZPMC QC is identified as Liu Dao Feng.
Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).
Listed below are the locations that were identified by this QA Inspector.

Component; OBG Hand Rail Mockup
PCMK: BKR-NS-10 & 36
Weld No:
Welder: 059373
WPS-B-T-2233-ESAB

Component; U-Rib Splice Plate
PCMK: SA3321B-013
Weld No: 003,004,
Welder: 203805
WPS-B-T-2231-ESAB

This Caltrans QA Inspector observed at random intervals ZPMC performing contour grinding of welds located on u-rib splice plates then match drilling of bolt holes on piece numbers SA3114D-051~074. ZPMC QC is identified as Liu Dao Feng.

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



Summary of Conversations:

No significant 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.

Inspected By:	Leavitt,Kelly	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer