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: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-014238
Date Inspected: 18-Apr-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: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Mr.Tian Lei

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: Orthotropic Box Girder(OBG)

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY-1

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) welding of weld joint 20TR2-035-011. Welder is identified as 216872. ZPMC Quality Control (QC) is identified as Mr. Ai Wei. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2232-TC-U5-F.

FCAW welding of weld joint 20TR2-021-011. Welder is identified as 216575. ZPMC Quality Control (QC) is identified as Mr. Ai Wei. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U5-F.

FCAW welding of weld joint 20TR2-018-015. Welder is identified as 215397. ZPMC Quality Control (QC) is identified as Mr. Ai Wei. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U5-F.

BAY-2

FCAW welding of Repair weld joint 20TR1-006-003. Welder is identified as 054276. ZPMC Quality Control (QC) is identified as Mr. Yang Qing feng. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1.The Repair welding was been performed as per the Welding Repair Report (WRR) No: B-WR11956.This weld was rejected by ZPMC UT Technicians and recorded on ZPMC Ultrasonic Testing (UT) Report No: B787-UT-12188.

FCAW welding of Repair weld joint 20TR1-016-003. Welder is identified as 045240. ZPMC Quality Control (QC) is identified as Mr. Yang Qing feng. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1.The Repair welding was been performed as per the Welding Repair Report (WRR) No: B-WR11812. This weld was rejected by ZPMC UT Technicians and recorded on ZPMC Ultrasonic Testing (UT) Report No: B787-UT-12200.

Submerged Arc Welding (SAW) welding of weld joint FB3185-001-007. Welder is identified as 045265. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2221-B-U3c-S-2.

SAW welding of weld joint FB3202-001-005. Welder is identified as 207237. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2221-B-U3c-S-2.

FCAW welding of Repair weld joint FB3223-001-001. Welder is identified as 045209. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1.The Repair welding was been performed as per the Welding Repair Report (WRR) No: B-WR12014.This weld was rejected by ZPMC UT Technicians and recorded on ZPMC Ultrasonic Testing (UT) Report No: B787-UT-12312.

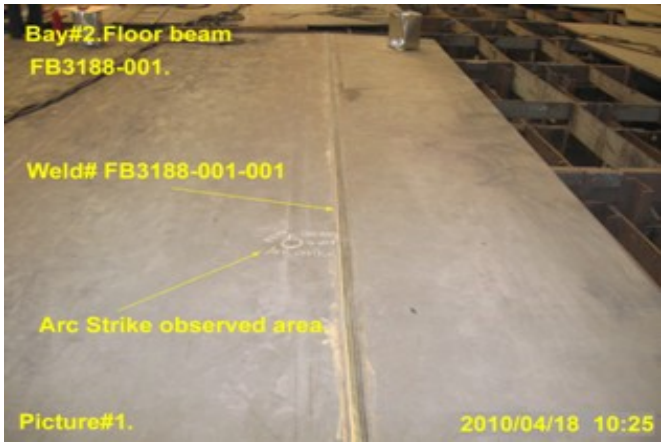
During Quality Assurance random Visual Inspection review of welds and floor beam base metal, this QA observed One (1) Arc Strike on FB- FB3188-001 base metal. The nearest weld number identified as FB3188-001-001. (For further information see attached Pictures: 1 and 2.)and Two (2) Arc Strikes observed on FB- FB3184-001 base metal. The nearest weld number is identified as FB3184-001-001. (For further information see attached Pictures: 3 and 4.)
This QA informed to ZPMC QC identified as Mr.Zhulin and ABF inspector identified as Mr. Wang Wen bin of the above issue, and reported to the Team leader.
As per ZPMC QC and American Bridge/Fluor (AB/F) QA the arc strike area shall be repaired by grinding and perform Magnetic Particle Testing(MT) for verifying no more defects.

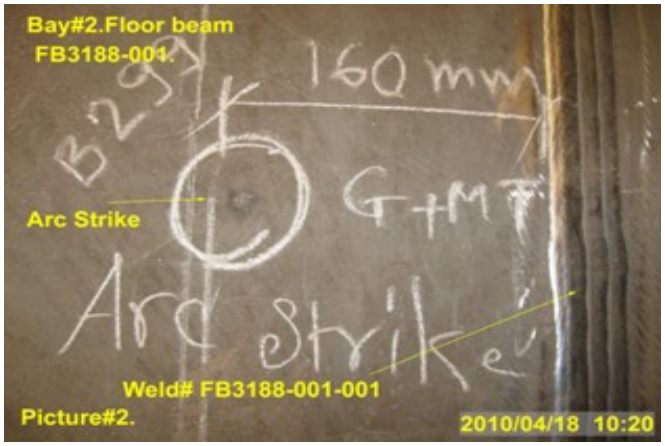
Applicable reference: Section 9.2.2.1 of the ZPMC Welding Quality Control Plan (WQCP)
“The surface defects such as pitting, arc strikes and compress marks shall be repaired by grinding and arc gouge excavation if necessary. The ground surface shall be transitioned smoothly. If the thickness after grinding is within the allowance shall have no need for repairing weld. Magnet Particle test shall be performed for the arc strike area after grinding for verifying no more defects.”

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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





Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

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:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer