

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018314**Date Inspected:** 24-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1100**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Xu Tao**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 Bike Path**Summary of Items Observed:**

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

Bay 19

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) repair welding of welds joint SB026-108-003 located on OBG Suspender Bracket SB108E. ZPMC Welder is identified as 062762. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-Tc-U4b-F

FCAW repair welding of welds joint SB018-102-007 located on OBG Suspender Bracket SB102W. ZPMC Welder is identified as 062807. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-2G (2F) - Repair, which is used as per Welding Repair Report (WRR) B-WWR-17675.

FCAW repair welding of welds joint SB021-102-004 located on OBG Suspender Bracket SB102E. ZPMC Welder is identified as 062788. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-2G (2F) - Repair, which is used as per Welding Repair Report (WRR) B-WWR-17676.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

FCAW repair welding of welds joint SB018-098-007 located on OBG Suspender Bracket SB098W. ZPMC Welder is identified as 062808. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-2G (2F) - Repair, which is used as per Welding Repair Report (WRR) B-WWR-17673.

FCAW welding of weld joint BK004BSD1-006 and 018 located on OBG Bike Path. ZPMC Welder is identified as 062808. ZPMC Quality Control (QC) is identified as Mr. Guo Xing Hui. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2232-B-U2-F.

FCAW welding of weld joint BK004BSD1-007 and 026 located on OBG Bike Path. ZPMC Welder is identified as 062808. ZPMC Quality Control (QC) is identified as Mr. Guo Xing Hui. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2233-Tc-U4b-F.

FCAW welding of weld joint BK004B3-001-002 and 010 located on OBG Bike Path. ZPMC Welder is identified as 062732. ZPMC Quality Control (QC) is identified as Mr. Guo Xing Hui. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2331-Tc-P4-F.

FCAW welding of weld joint BK004B5-001-002, 003, 008, 006 located on OBG Bike Path. ZPMC Welder is identified as 062808. ZPMC Quality Control (QC) is identified as Mr. Guo Xing Hui. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2231-Tc-U4b-F.

Description of Incident: During the Caltrans Quality Assurance in-process observations of the fabrication of Bike Path, this Quality Assurance Inspector (QA) observed that the after welding is completed but ZPMC not performed post weld heat in the area of the weld at 165 C - 225°C. The weld is identified as BK004B3-001-058. The welding process used was Flux Core Arc Welding (FCAW). The weld is a Fillet weld joining Stringer plate (BKX7F) to Bottom Plate Longitudinal Diaphragm (BKPL6A). The weld is Non Seismic Performance Critical Member (SPCM).

Bike Path BK004B-001 is located Bay19. Regarding this issue, QA informed to ZPMC Quality control personnel for corrective action. The ZPMC QC is identified as Mr. Xu Tao. See the attached pictures.

Description of Incident: During random Quality Assurance Visual review of welds located on OBG bay 19, this Quality Assurance Inspector (QA) observed that ZPMC improperly stored used FCAW Electrodes. ZPMC not store the FCAW electrodes as per code or else manufacture recommendation. Regarding this issue, QA informed to ZPMC Quality control personnel for corrective action and not more use these electrodes for further welding. The ZPMC QC is identified as Mr. Xu Tao. See the attached pictures.

Visual Inspection after Blast

OBG Segment 12BW

This QA Inspector performed a preliminary random visual inspection on OBG Segment 12BW, after the grit blast of the interior components bottom side of the bottom plate, longitudinal diaphragm, floor beams, side plates and corner assemblies of this segment panel point PP113 to P115. Areas of visual weld defects that will require welding were taped and will be repaired after the coating is applied. ZPMC QC personnel are aware of these areas

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

and were present during the inspection.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and 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 , who represents the Office of Structural Materials for your project.

Inspected By: Kumar,Vibin

Quality Assurance Inspector

Reviewed By: Patel,Hiranch

QA Reviewer