

**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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018483**Date Inspected:** 06-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1100**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** John Pagliero**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 Section**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

1) At weld joint 7E/8E – LS-1 and 3, inside the OBG section: ABF welding personnel Hua Qiang Hwang (#2930) was performing repair welding using the Shielded Metal Arc Welding (SMAW) process. QC Inspector John Pagliero was monitoring the work.

2) At weld joint 4E/5E – LS-4, inside the OBG section: ABF welding personnel Xiao Jian Wan (#9677) was performing repair welding using the SMAW process. QC Inspector John Pagliero was monitoring the work.

At weld joint 7E/8E – LS-1 and 3, inside the OBG section this QA Inspector observed ABF welding personnel Hua Qiang Hwang (#2930) was in the process of performing repairs. This QA Inspector observed ABF welding personnel Hua Qiang Hwang (#2930) using a power grinder to excavate repairs, one repair was on LS-1 and the other was on LS-3. After excavating these areas this QA Inspector observed QC Inspector John Pagliero perform and accept a visual and Magnetic Particle Testing (MT) of the excavation sites. This QA Inspector performed a random visual verification and observed the following: LS-1, the excavation was located at Y-105 and was 70 mm long, 17 mm wide and 11 mm deep. At LS-3, the excavation was located at Y-30 and was 55 mm long, 15 mm wide and 16 mm deep. The visual and MT inspections performed by QC Inspector John Pagliero appeared to

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## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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comply with the contract requirements. QC Inspector John Pagliero verbally informed this QA Inspector this was the first repair cycle (R-1) at each of the excavations noted above. This QA Inspector observed ABF welding personnel Hua Qiang Hwang (#2930) had elected to start repair welding on LS-3. This QA Inspector observed QC Inspector John Pagliero verify the SMAW welding amperage to be 125 amperes prior to the start of welding. This QA Inspector observed ABF welding personnel Hua Qiang Hwang (#2930) use a gas torch to provide preheat. This QA Inspector observed as QC Inspector John Pagliero verified the preheated area was adequate in size and was at a temperature greater than 100°C but less than 230°C using an electronic temperature gauge. This QA Inspector observed ABF welding personnel Hua Qiang Hwang (#2930) was using a 3.2 mm diameter E9018H4R electrode taken from a heated storage container adjacent to the work area. The work observed appeared to comply with ABF-WPS-D15-1012-3.

At weld joint 4E/5E – LS-4, inside the OBG section this QA Inspector observed ABF welding personnel Xiao Jian Wan (#9677) was in the process of performing a weld repair. This QA Inspector observed ABF welding personnel Xiao Jian Wan (#9677) using a power grinder to excavate the repair area. After excavating the area this QA Inspector observed QC Inspector John Pagliero perform and accept a visual and Magnetic Particle Testing (MT) of the excavation site. This QA Inspector performed a random visual verification and observed the following repair area was located at Y-40 and was 115 mm long, 25 mm wide and 20 mm deep. The visual and MT inspections performed by QC Inspector John Pagliero appeared to comply with the contract requirements. QC Inspector John Pagliero verbally informed this QA Inspector this was the first repair cycle (R-1) at the excavation noted above. This QA Inspector observed ABF welding personnel Xiao Jian Wan (#9677) use a gas torch to provide preheat. This QA Inspector observed as QC Inspector John Pagliero verified the preheated area was adequate in size and was at a temperature greater than 100°C but less than 230°C using an electronic temperature gauge. This QA Inspector observed QC Inspector John Pagliero verify the SMAW welding amperage to be 124 amperes on a piece of scrap material prior to the start of repair welding. This QA Inspector observed ABF welding personnel Xiao Jian Wan (#9677) was using a 3.2 mm diameter E9018H4R electrode taken from a heated storage container adjacent to the work area. The work observed appeared to comply with ABF-WPS-D15-1012-3.

### 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 Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hager,Craig	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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