

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 #: 01.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029928**Date Inspected:** 20-Aug-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Jesus Cayabyab & Bernie Docena			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:** See Below**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Edward Leach was at the American Bridge/Flour (ABF) job site at Yerba Buena Island between the times noted above in order to monitor Smith Emery Quality Control (QC) functions and the in process work being performed by ABF personnel. The following items were observed:

Tower Skirt Ring Beam South Shaft

The QAI observed ABF personnel using a hoisting device to move the ring beam section away from the tower to provide access for back gouging. ABF welding personnel Gue Wu Chen performed back gouging on side A of Complete Joint Penetration (CJP) joint field splice. The QAI later observed QC Inspector Bernie Docena perform Magnetic Particle Testing (MT) examination on the weld groove after back gouging and prior to welding. No relevant indications were noted and SMAW welding proceeded on side A. The QAI and QC Inspector also performed visual weld inspection on fillet & Partial Joint Penetration (PJP) welds. The QC Inspector marked up several visual discrepancies for repair by welding and grinding. These areas were addressed by ABF personnel, later re-evaluated and accepted by QC Inspector Bernie Docena.

ESW Weld Repair "Q"

The QAI periodically observed ABF welding personnel Donald Plumb utilizing the Shielded Metal Arc Welding (SMAW) process in the vertical (3G) position with Atom Arc E7018-1 H4R, 5/32" diameter electrode to weld cover passes for excavation of weld repair. The welding is taking place on the exterior (east) side at joint Q, weld #E-043 #16 on Face A side for a repair designated as 201308-003. Excavation dimensions are noted as Y=3390mm-3760mm, Length=370mm, Width=70mm, Depth=55mm. The welder was observed applying filler passes on this date. The QAI observed the interpass temperature was maintained at approximately 370 degrees

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Fahrenheit with electric heating coil blankets through a heat induction system. As welding continued the QAI periodically verified welding parameters at approximately 145 amperes per ABF-WPS-D1.5-1000Repair, Rev.3. The welder was also observed using proper interpass cleaning methods with a slag hammer and a wire brush. QC Inspector Bernie Docena was monitoring the progress of this repair on this date.

Tower Skirt Ring Beam West Shaft

The QAI periodically observed ABF welding personnel Rick Chounard at the above location utilizing the Shielded Metal Arc Welding (SMAW) process in the vertical (3G) (3F) & horizontal (2F) positions with Atom Arc E7018-1 HR4, 1/8" diameter electrode to perform in process welding for the Complete Joint Penetration (CJP) joint, Partial Joint Penetration (PJP) and fillet welds. As welding continued on the CJP weld the QAI verified welding parameters at approximately 150 amperes per Welding Procedure Specification (WPS) ABF-WPS-D1.5-1020, Rev1. The welder was also observed using proper interpass cleaning methods with a slag hammer and a wire brush. QC Inspector Bernie Docena was monitoring the work at this location on this date.

The welding & workmanship observed on this date appeared to be in general compliance with the contract specifications. The following pictures below detail some of the observations made on this date.



Summary of Conversations:

General conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

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 Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Leach,Ed	Quality Assurance Inspector
Reviewed By:	Reyes,Danny	QA Reviewer
