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 #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027570
Date Inspected: 09-May-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name:	As noted below.			**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: Tower Component

Summary of Items Observed:

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

In Process Visual Inspection
Tower

This QA observed, at random intervals, ABF/JV qualified welder Wai Kit Li #2953 performing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1001-Repair. The joint being welded was tower shear plate designated as ESW weld E-045 location “F” from face “B” per WRR201205-002.

Weld Repair Report No: 201205-002
“A rejectable indication was found by Ultrasonic Testing (UT) examination of Electroslag (ESW) weld E-045, indicated at location “F”. The defect was indicated at the Y axis +7600mm, X axis +2mm, at a depth of 10mm (from face A), and was approximately 140mm in length…

This defect was evaluated in the ESW Preliminary Inspection and Repair Report as Indication F5, shown at Y +7620 and was characterized as a shallow slag pool condition. A follow-up UT examination performed after the initial UT testing indicated a slight shift in defect location…

This defect has been inadvertently excavated from both Face A and Face B for the full depth of the shear plate (60mm). The excavation is approximately 65% of the plate depth from Face A. The excavation showed a line of incomplete fusion within the weld metal…

WELDING INSPECTION REPORT

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The joint configuration is a 90 degree tee joint and this configuration is highly restrained."

During welding, ABF Quality Control (QC) Steve McConnell was noted monitoring the welding parameters. Welding parameters were recorded as (A=135).

This QA randomly observed ABF/JV qualified welder Richard Garcia #5892 performing Shielded Metal Arc Welding (SMAW) with 3.2 diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-F1200A. This work was located on C channel designated as 098-3 just below the 9m diaphragm.

During welding, ABF Quality Control (QC) Bernie Docena was noted monitoring the welding parameters. Welding parameters were recorded as (A=135).

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

Summary of Conversations:

No relevant 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 SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Clifford,William	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer