

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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015641**Date Inspected:** 13-Jul-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:** Bernard 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:** 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 E4/E5 – D1 and D2, inside the OBG section: QC Inspector Jesus Cayabyab had performed a visual, Magnetic Particle Testing (MT) and Ultrasonic Testing (UT).
- 2) At weld joint E5/E6 – E2, inside the OBG section: ABF welding personnel Hung Jin Quan (#9340) and Songtao Huang (# 3794) were performing Flux Cored Arc Welding (FCAW). QC Inspector Bernard Docena was present and monitoring the work.

At weld joint E4/E5 – D1 and D2, inside the OBG section this QA Inspector was informed by QC Inspector Jesus Cayabyab he had performed a visual, MT and UT inspection on the completed weld and had the following results. The visual inspection was rejected due to undercut, under fill, excessive weld reinforcement and unacceptable weld couter at various locations on both welds D1 and D2. The MT inspection did not detect any indications that were rejected. The UT inspection resulted in 8 areas being rejected. Please note that QC Inspector Jesus Cayabyab also stated the areas visually rejected still need to be MT and UT inspected.

At weld joint E5/E6 – E2, inside the OBG section this QA Inspector observed ABF welding personnel Hung Jin

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Quan (#9340) and Songtao Huang (# 3794) setting up the Bug-O track system to start performing FCAW and waiting for the base material to reach the minimum preheat temperature. While waiting this QA Inspector verified the filler metal was an ESAB 70-Ultraplus. At approximately 0800 hours this QA Inspector randomly observed QC Inspector Bernard Docena check the temperature of the base material and verified the temperature was greater than the minimum preheat temperature (70°F). This QA Inspector observed an average temperature of 150°F. Production welding started and this QA Inspector randomly observed QC Inspector Bernard Docena verify the following welding parameters: 250 amperes and 23.8 volts with a travel speed of 240 mm per minute. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15- 3040A-3.

In general the work observed this date appeared to comply with the contract requirements.

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 Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
