

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027774**Date Inspected:** 14-Jun-2012**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:** 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:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey 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:

**Electroslag Weld Repairs**

This QA Inspector randomly observed ABF/JV qualified welder Xiao Hua Luo #1291 performing Shielded Metal Arc Welding (SMAW) using 3.2mm" diameter E7018-H4R electrodes and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D1.5-1001-Repair. The joint being welded was tower shear plate designated as ESW weld, location "F" from face B. Dimensions excavated for this repair was: Weld "F" – Y=1620mm, L=150mm, W=40mm, D=10mm. During welding, ABF Quality Control (QC) Jesse Cayabyab was noted monitoring the welding parameters. Welding parameters were recorded as (A=125). This QA Inspector noted that between passes the welder was cleaning the work using a small disc grinder as QC measured the inter-pass temperatures with Tempilstik Heat Indicators. At the time of the observations no issues were noted by this QA Inspector. On subsequent observations to monitor quality, it was noted that the work was completed and appeared to be in general conformance with the contract documents.

This QA Inspector randomly observed ABF/JV qualified welder Xiao Hua Luo #1291 performing SMAW using 3.2mm" diameter E7018-H4R electrodes and implementing Caltrans approved WPS ABF-WPS-D1.5-1001-Repair. The joint being welded was tower shear plate designated as ESW weld, location "F" from face B. Dimensions excavated for this repair was: Weld "F" – Y=3400mm, L=180mm, W=50mm, D=28mm. During

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# WELDING INSPECTION REPORT

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welding, ABF QC Bernie Docena was noted as monitoring the welding parameters. Welding parameters were recorded as (A=125). This QA Inspector noted that between passes the welder was cleaning the work using a small disc grinder as QC measured the inter-pass temperatures with Tempilstik Heat Indicators. At the time of the observations no issues were noted by this QA Inspector. On subsequent observations to monitor quality, it was noted that the work was in process and appeared to be in general conformance with the contract documents.

## QC NDT

This QA Inspector randomly observed QC Inspector Andrew Keech performing Ultrasonic Testing (UT) on the completed welds of ESW "V" face B. The QC Inspector was observed scanning from each side of the weld and the scanning pattern as described in D1.5 6.24. The QC Inspector was noted as identifying one (1) rejectable indications located at y+7510mm at 115mm in length and 76mm deep. This QA Inspector noted that the work at this location is ongoing and appeared to be in general conformance with the contract documents and SE-UT-D1.5-CT-100-Revision 4.

## Summary of Conversations:

Conversations were relevant to welding performed and information unique with each location.



## 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>	Frey,Doug	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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