

**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-026535**Date Inspected:** 17-Oct-2011**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

<b>CWI Name:</b>	Pat Swain and William Sherwood			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	SAS OBG		

**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 10W-PP92-W4-# 1 & # 3 lifting lug hole infill plates to top deck plate inside - ABF welder Mike Jimenez was observed performing 4G SMAW back welding fill pass on the infill plate to top deck plate butt joint. The welder was noted using 1/8" diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1110A. During welding, ABF QC Jesse Cayabyab was noted monitoring the welder's welding parameters. QA measured welding parameters during the shift was 135 amps. At the end of the shift, cover pass welding on both #1 and #3 lifting lug hole infill plate to top deck plate butt joints was completed. QA and QC performed the Visual Test (VT) on the completed butt joints with positive result.

After the VT acceptance of the lifting lug holes mentioned above, the same welder has moved to lifting lug hole #4 of the panel point (PP) location and started excavating the Ultrasonic Testing (UT) detected defect of the welded butt joint located at Y=290mm. The welder was noted using carbon air arc gouging to remove the defect then ground smooth using the die grinder. Final dimensions after excavation was 50mm long x 22mm wide x 6mm deep from the inside. The excavation was tested using Magnetic Particle Testing (MT) by ABF QC Pat Swain with positive result. The welder has welded the first time repair at 4G (overhead) position using 1/8" diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1000 Repair. At the end of the shift, welding repair at location just mentioned was completed.

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# WELDING INSPECTION REPORT

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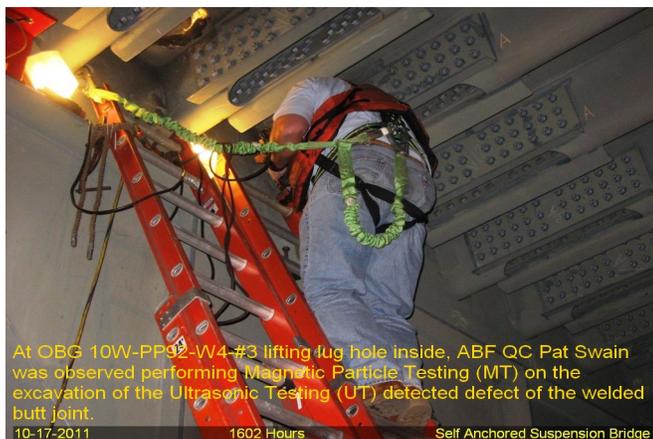
At OBG 12W/13W edge plate 'F' outside, QA randomly observed ABF/JV qualified welder Fred Kaddu perform root pass to fill pass welding on the Complete Joint Penetration (CJP) splice butt joint. The welder was observed manually welding in the 3G (vertical) position utilizing a Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040B. The joint being welded has a single V-groove butt joint with steel backing bar that was fitted and aligned and previously verified by fellow QA Doug Frey . ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. QA randomly monitored the welding parameter with reading of 132 amperes which appears in conformance to the contract requirements. At the end of the shift, SMAW fill pass welding on a partial length of the joint was still continuing and should remain tomorrow.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT of the Complete Joint Penetration (CJP) welding of one (1) deck access hole infill plate to top deck plate butt joint. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the weld and the QC inspection complied with the contract documents.

## 1. OBG 8E-PP70.5-E5 NE deck access hole outside - QA VT/MT verified

FW Spencer:

At location 10W-PP88-89-E5, Tom Colombo of FW Spencer made a request thru the Lead QA Danny Reyes to perform verification on the 1/4" fillet weld that was welded on the bottom of 2 1/2" diameter domestic water line that passed thru the base of electrical lighting post box. FW Spencer welder Curtis Jump has welded 1/4" fillet on both sides of two 5/16" thick x 4" long plate to the bottom side of the 2 1/2" diameter x schedule 40 line pipe. ABF QC John Pagliero and this QA performed the VT inspection/verification and noted positive result.



## Summary of Conversations:

No significant conversation occurred today.

## 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.

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