

**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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013463**Date Inspected:** 26-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1100**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

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

**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 L1E/L2E deck plate 'A' inside, QA randomly observed ABF/JV qualified welder James Zhen ID #6001 perform overhead termination welding from one end of deck plate 'A' backing bar to edge plate 'F'. The welder was observed welding in the overhead (4F) position using Shielded Metal Arc Welding with E7018H4R, 1/8" diameter electrode. The welding being made is a termination and connection from one end of the deck plate 'A' backing bar to the edge plate 'F' in reference to Request For Information (RFI) ABF-RFI-002097R00 dated March 19, 2010. The termination welding on this location was monitored by ABF QC William Sherwood. At the end of the shift, welding was still continuing.

At OBG L1E/L2E edge plate 'B' (bottom corner), QA also randomly observed ABF/JV qualified welder Chun Fai Huang ID #3426 perform CJP welding of the splice butt joint and tied it into the 'C' plate. The welder was observed welding in the horizontal (2G) position using Shielded Metal Arc Welding with E7018H4R, 1/8" diameter electrode. The welding on this location was monitored by ABF QC William Sherwood and was still continuing at the end of the shift.

At OBG L2E/L3E side plate 'C' inside, QA randomly observed ABF/JV qualified welder Rick Clayborn ID #2773 perform CJP groove welding repair. The welder was observed welding in the 3G (vertical) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" and 5/32" diameter E7018H4R electrode implementing welding

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procedure ABF-WPS-D15-1000-Repairs. The weld repairs were excavated to a boat shape and the plates were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Barry Blake was noted monitoring the welder. Prior welding, the excavations that were welded were tested using Magnetic Particle Testing (MT) by ABF QC Barry Blake. During the shift, the welder has completed four repairs and was working on the fifth repair at the end of the shift.

At OBG L3E/L4E bottom corner of side plate 'E' and edge plate 'F' outside, QA also randomly observed ABF qualified welder Rory Hogan perform overhead and vertical welding. The overhead welding was done to tie in the vertical weld to the overhead weld and also as initial weld when they do the overhead (4G) FCAW-G back welding of the splice butt joint. The welder was noted using Shielded Metal Arc Welding (SMAW) with E7018H4R, 1/8" diameter electrode. QA performed a parameter check on the current and was noted to be 128 amperes. QA also noted Jim Cunningham monitoring the welder and his welding parameters.



## Summary of Conversations:

As stated 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 SMR Mohammad Fatemi (916) 227-5298, 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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