

**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-012988**Date Inspected:** 12-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>	Tom Pasqualone and Jim Cunningham			<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>	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 L3E/L4E plate 'E1' (2230 to 5280mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 and Mitch Sittinger ID #0315 perform CJP groove (splice) welding fill to cover pass. The welder was observed welding in the 3G (vertical) position utilizing an automatic dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3042B-1. The joint being welded has a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 150 degree Fahrenheit using Miller Proheat 35 Induction Heating System located at the other side of the plate prior welding. During welding, ABF Quality Control (QC) Tom Pasqualone was noted monitoring the welding parameters of the welder. QA performed parameter readings during welding with the following results; 236 amperes, 23.4 volts and 230mm per minute travel speed which are deemed acceptable to contract specifications. The ABF welders have completed welding the cover of the splice butt joint in this mentioned area and was noted visually inspected by ABF Tom Pasqualone. QA also performed initial visual check on the completed weld and appears acceptable to contract requirements. After completing welding the area mentioned above, the welders have moved to plate E2. Before the end of the shift, the welders have started moving their welding equipment and other tools to the new location and informed QC that there will be no more welding for today.

At OBG 2E/3E side plate 'C' outside, ABF welders Rory Hogan and Jeremy Dolman were seen moving their

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welding equipment from 1E/2E plate 'C' outside. The welders were also noted welding the run off tab using a Shielded Metal Arc Welding (SMAW). ABF QC Jim Cunningham was observed monitoring the welding parameters during welding.

At other OBG locations, 2E/3E side plates 'E' outside, two ABF personnel were observed gouging the backing bar using the plasma arc. At the end of the shift, gouging was still continuing. And at 1E/2E side plate 'C', two ABF personnel were also seen flush grinding the back weld reinforcement. The ABF personnel were seen using a grinding wheel intended for steel material and the direction of grinding marks were parallel to the axis of the bridge.



## 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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**Inspected By:** Lizardo, Joselito

Quality Assurance Inspector

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**Reviewed By:**      Levell,Bill

QA Reviewer