

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026242**Date Inspected:** 02-Sep-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	John Pagliero and Steve Mc Conn			<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 Tower		

**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 Tower Base Electro Slag Welding (ESW) T-joints E-041 location 'R' and S-041 location 'S' outside, ABF welder Richard Garcia was noted continuing to remove the remnants of the strong back that were used during the ESW. The welder was using carbon air arc gouging to remove the remnants and was followed by disc/flapper grinder to make the surface smooth. After the smooth grinding by the welder, ABF QC John Pagliero was noted performing Magnetic Particle Testing (MT) on the remnants removal. The welder has started from the very top of the ESW and noted moving side to side between the two ESW weld joints moving his way to the bottom. The welder has finished four (4) remnants when he noted there was a visually rejected cover on location 'S' due to weld overlap where he excavated to sound metal and QC MT'd the excavation and welded it afterwards.

At Tower Base Electro Slag Welding (ESW) T-joint #S-041 location 'S' outside, QA randomly ABF welder Richard Garcia perform 3G SMAW welding repair on the visually (VT) detected defect on the surface of the vertical weld of the ESW. The welder was observed welding in the 3G (vertical) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repair Rev. 2. The repair excavation located at Y=5500mm to Y=5660mm was excavated to dimensions of 160mm long x 20mm wide x 9mm deep. The excavation was tested using Magnetic Particle Testing (MT) by ABF QC John Pagliero and confirmed by this QA. The repair excavation and the adjacent base metal was preheated and maintained to more than 149°C (300°F) using propylene gas torch. During the shift, ABF

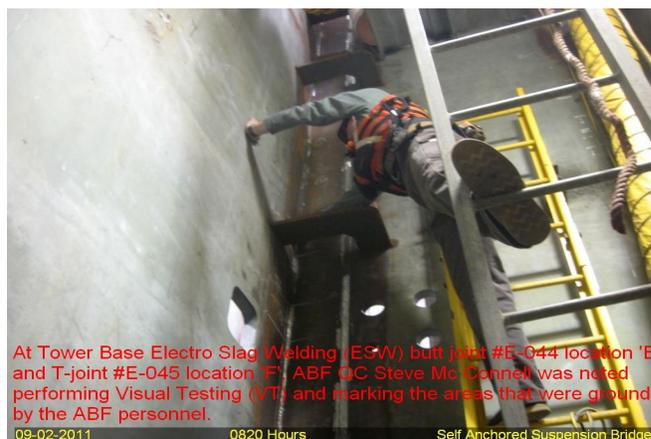
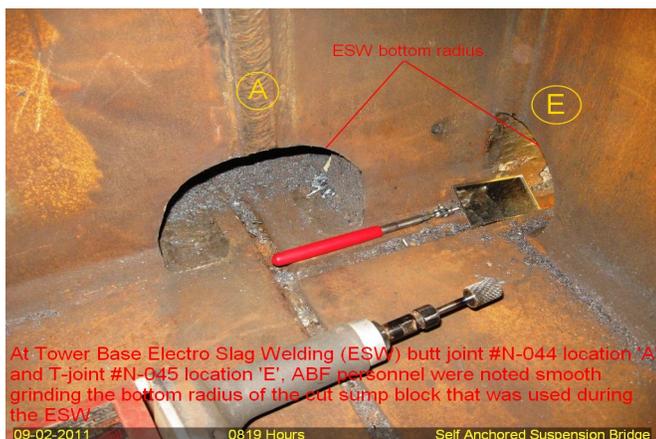
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QC John Pagliero was noted monitoring the welder. Measured welding parameter during welding was 130 amperes on a 1/8" diameter E7018H4R electrode. At the end of the shift, welding repair on the weld cover of the ESW at location mentioned above was completed.

Other welding related activities noted during the shift include the following;

1. ESW location 'N' (inside) – removal of the strong back remnants using carbon air arc gouging was noted in progress.
2. ESW locations 'A' and 'E' (inside center diaphragm) – smooth grinding of the cut and gouged radius of the sump block removal was noted in progress.
3. ESW locations 'E', 'F', 'G' and 'H' (inside center diaphragm) – ABF QC VT/MT on the ESW weld cover after ABF grinding still continues.



## 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

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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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