

**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-026426**Date Inspected:** 28-Sep-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>	John Pagliero 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 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-joint #E-041 location 'R', QA randomly observed ABF welder Richard Garcia perform 2F Shielded Metal Arc Welding (SMAW) fillet welding the two corners of the cut radius to the base plate. The welder was noted fillet in horizontal position using 1/8" diameter E7018H4R electrode. Prior welding, the joint and the adjacent weld metal were preheated to 300°F using propylene gas torch. ABF QC John Pagliero was noted monitoring the parameters of the welder during welding. Measured amperage during welding was 135 amperes on a 1/8" diameter E7018H4R electrode. At the end of the shift, the two welded fillet welds measuring 15mm to 20mm were completed.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT of the ESW welding of one (1) location at 9 to 13 meters elevation. 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.

ESW Location    Remarks

1. W-041 location 'W' (inside/B face) Deemed acceptable.

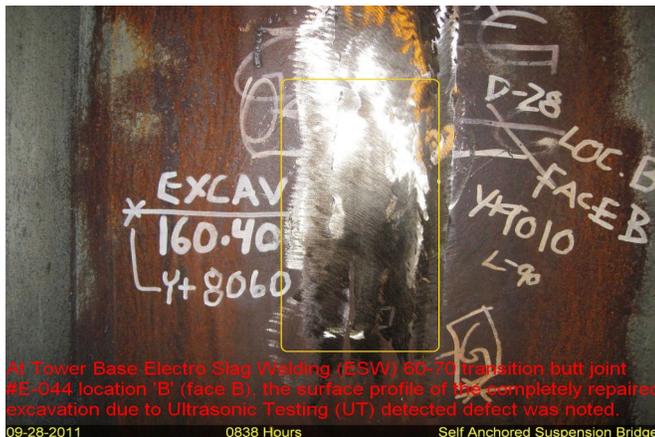
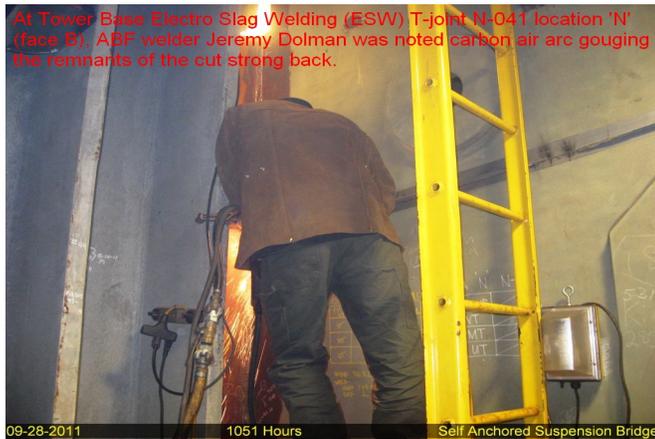
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At Tower Base Electro Slag Welding (ESW) T-joint #N-041 location 'N' (inside), ABF welder Jeremy Dolman was noted excavating the Ultrasonic Testing (UT) detected defect at Y=9350mm. The welder was using carbon air arc gouging to excavate the defect then followed by die grinder to make the boat shape excavation smooth. The final dimensions of the excavation after carbon arcing/grinding were 210mm long x 22mm wide x 12mm deep. ABF QC William Sherwood was observed performing Magnetic Particle Testing (MT) on the removal of the defect with positive result. This QA also performed verification on the defect removal with same result. After the completion of the excavation, the welder has performed carbon air arc gouging on the remnants of the cut strong back until the end of the shift.

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

1. ESW location 'G', 'H', 'M' & 'L' (inside inner west diaphragm 9 to 13 meters elevation) – grinding of the ESW weld cover that was marked by QC during their previous VT/MT. Still in progress.
2. ESW locations 'E', 'F', 'G' & 'H' (inside center diaphragm 0 to 9 meters elevation) – grinding of the ESW weld cover that was marked by QC during their previous VT/MT. Still in progress.
3. ESW locations 'P', 'Q', 'V' & 'T' (outside/80-100 butt joint transition) – four ABF welders were noted continuing to grind/clean the ESW weld cover that include removal of strong back remnants.



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# WELDING INSPECTION REPORT

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**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
<b>Reviewed By:</b>	Levell, Bill	QA Reviewer

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