

**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-025368**Date Inspected:** 28-Jul-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**CWI Name:** John Pagliero**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** 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 the Tower Base Electro Slag Welding (ESW), this QA performed a joint fit up verification on the next ESW T-joint S-041 location 'S' to be welded next. The measured root gap was noted 17.5mm minimum and 25mm maximum. There was no lesser than 16mm nor more than 25mm root gap noted from the bottom to the top of the T-joint. With the measurements that were taken during the fit up verification, the fit up of the weld T-joint was deemed in compliance to the contract requirements.

The following activities were noted during the preparations for the next ESW T-joint S-041 location 'S' scheduled to be welded Friday, July 29, 2011;

1. ABF personnel were noted dismantling the Hilti unistrut columns that were used during Electro Slag Welding of T-joint E-041 location 'R' and moved to the next T-joint S-041 location 'S'.
2. Tack welding of 3" x 3" angular brackets to previously welded strong back on one end and to the Hilti unistrut column on the other end. ABF welder Richard Garcia was noted using 1/8" diameter E7018H4R electrode.
3. Wire wheel cleaning of the joint surface and adjacent weld metal was performed.

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# WELDING INSPECTION REPORT

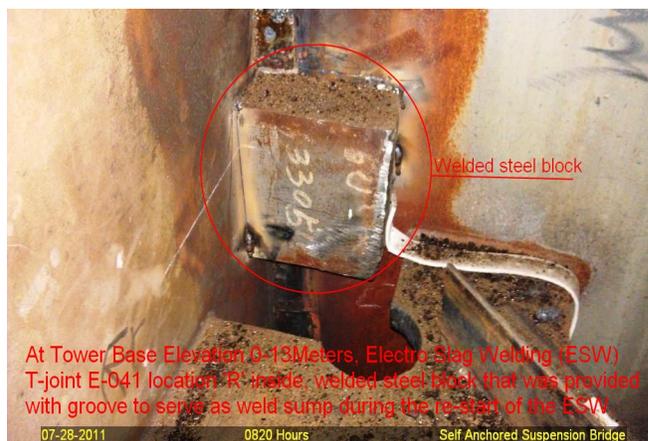
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4. Laid out weld shoe cooling water hoses from the chiller to the bottom of weld joint to be welded.
5. Laid out welding cables from the Lincoln Electric DC-1000 welding machines to the wire feeder, controllers and consumable guide tube pick up.
6. Tack welding of the run off tab to the top of plate to be welded was completed.
7. Put in place the consumable guide tube.
8. Inserted consumable insulators every six (6) inches between the consumable guide tube and joint surface as required.

During the shift, this QA performed random inspection of the previously welded ESW weld joint E-041 location 'R'. It was noted that the weld cover from bottom 93" to 99" (6" long) was having an underfill. The steel block that was used during the re-start of the ESW due to power failure was noted still welded and not removed from the joint. The re-start weld joint was noted satisfactory from the outside but cannot verify from the inside due to the presence of the steel block.



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

Quality Assurance Inspector

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**Reviewed By:** Levell, Bill

QA Reviewer