

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-027243**Date Inspected:** 25-Feb-2012**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**CWI Name:** Steve Jensen**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 Tower Base 13 meters diaphragm, weld joint number W117, QA randomly observed ABF certified welder James Zhen ID #6001 and Dan Ieraci ID #3232 continuing to perform 1G (flat position) Submerged Arc Welding (SAW) on the Partial Joint Penetration (PJP) T- joint between the 45mm thick outer East diaphragm and 45mm thick Tower East Shaft skin plate 'B'. The welders were utilizing F7A6-EM12K-H8, 3.2mm electrode with corresponding Esab OK Flux 10.62 flux and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-4062-1. The joint being welded has a 45 degree bevel groove T- joint with an average root opening of 3.0mm and C-channel installed underneath that will serve as the backing bar. The plates were preheated to more than 225 °F using Miller Proheat 35 Induction Heating System with one heater blanket located on top of each plate prior welding and moving it to the side and lifting the other during welding. ABF/QC Steve Jensen was noted monitoring the welding parameters of the welder with measured working current of 560 amperes, 31.5 volts with travel speed of 375 mm per minute and calculated heat input of 2.8 Kjoules/mm. QA noted the welding parameters, the workmanship and appearance of the completed fill deemed satisfactory. At the end of the shift, SAW cover pass welding was completed. The preheat of more than 225 degrees Fahrenheit was held for three more hours after welding as required.

After the completion of the PJP T-joint at W117, ABF personnel were noted moving their track mounted wire feeder and so with other SAW accessories in preparation for the SAW welding of another PJP T-joint W118.

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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.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer