

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-026803**Date Inspected:** 02-Dec-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**CWI Name:** Fred Von Hoff**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 OBG**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.

QA randomly observed ABF/JV qualified welder James Zhen perform Complete Joint Penetration (CJP) groove welding root pass to fill pass on Orthotropic Box Girder (OBG) 13E/14E bottom plate 'D3' (0mm to 3120mm) inside. The welder was observed manually welding in the 1G (flat) position utilizing a 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-D15-3040A-1. The splice joint has a single V-groove design with 16mm plate thickness. The splice joint was continuously preheated to greater than 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blankets located at the bottom of the plate being welded. During welding, ABF Quality Control (QC) Fred Von Hoff was noted monitoring the welding parameters of the welder. Measured welding parameters during welding were 260 amperes, 25.0 volts which appears in compliance to the contract requirements. At the end of the shift, FCAW-G fill pass welding was still continuing and should remain tomorrow.

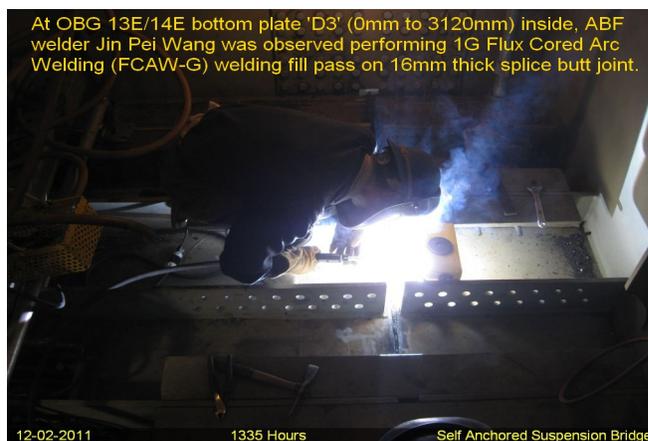
At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT of the Complete Joint Penetration (CJP) welding of three (3) lifting lug hole infill plates to top deck plate butt joints. The QA verification was performed to verify that the welding and the 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.

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1. OBG 14W-PP128-W3-#1 lifting lug hole infill plate to deck plate outside - QA VT/MT verified
2. OBG 14W-PP128-W3-#2 lifting lug hole infill plate to deck plate outside - QA VT/MT verified
3. OBG 14W-PP128-W3-#4 lifting lug hole infill plate to deck plate outside - QA VT/MT verified

At the Tower Base, this QA together with fellow QA Doug Frey performed Tower survey and observation on the ongoing cutting and grinding of various lifting lug eye welded to the east and west shear plates and 13 meters diaphragms. The ABF personnel have used cutting torch to cut the lifting lug eye 1/4" close to the plate then ground flush the remnants using a flapper disc. The removal and grinding of the lugs were ground smooth and deemed acceptable to the contract requirements. Four (4) lifting lug eyes removed and ground outside the east shear plate and four (4) on the west shear plate were completed. Four (4) lifting lug eyes from each diaphragm (7) on the 13 meters elevation were also removed and ground but already painted.



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