

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015836**Date Inspected:** 26-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**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:** Orthotropic Box Girder**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 OBG L5E/L6E side plate 'C' (0mm to 3110mm) inside, QA noted the welding of the splice at this location was completed and the welder has moved to location 7478mm to 9855mm. Before the welder moved to the new location, ABF bolting crew personnel were observed removing the connection plates that were temporarily bolted to hold the OBG splice in place. After the connection plates' removal, welder Sungtao, Huang ID # 3794 fixed the backing bar from the other side that came loose due to frequent chipping during welding. The welder welded the root pass by hand with the FCAW-G in 3G (vertical) position. The welder continued to perform CJP groove (splice) welding fill pass on the splice butt joint. The welder was observed performing automatic welding in the 3G (vertical) 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-D15-3042B-1. The joint being welded had a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System located at the opposite side of the plate prior/during welding. ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters of the welder. At the end of the shift, fill pass welding of the splice joint was still continuing and should remain tomorrow.

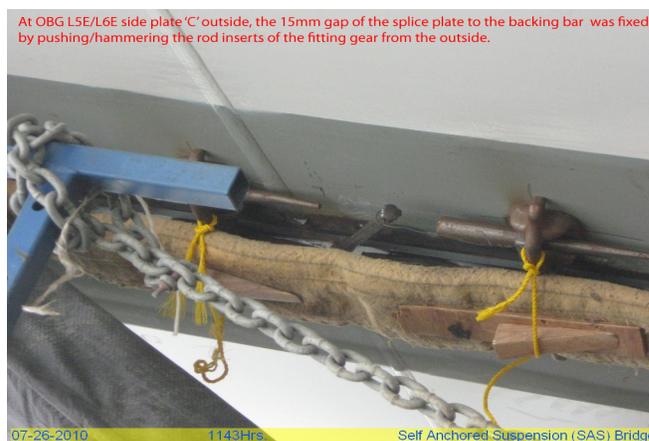
At OBG L4E/L5E edge plate 'F' inside, QA observed ABF welder Jin Pei Wang perform FCAW-G welding cover pass in 3G (vertical) position on the splice butt joint back welding. The joint being welded was welded from the

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

outside and was back gouged and ground smooth from the inside. The welder was observed performing welding in the 3G (vertical) 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-D15-3110-3. The splice joint was preheated to greater than 150 degrees Fahrenheit using propane gas torch prior welding. ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters of the welder.

At OBG L4E/L5E side plate 'E' outside, QA randomly observed ABF personnel continuing to perform plasma arc gouging on the backing bar removal of the splice butt joint. The personnel were using an Esab plasma arc gouging machine that has the nozzle holder attached to a Bug-o track. Gouging of the backing bar was not completed today and should continue tomorrow.



Summary of Conversations:

At OBG L5E/L6E side plate 'C' (0mm to 3110mm); ABF QC John Pagliero performed a preliminary visual test (VT) on the just welded cover of the splice butt joint. During his inspection to the weld cover, he marked a lot of spots from 0mm to 1000mm location wherein the weld reinforcement was excessive (>4.0mm to 5.0mm). QA also performed random verification on the weld cover reinforcement and confirmed QC's assessment. Due to this QC finding, QC has instructed the welder Songtao, Huang to grind off the excessive weld cover reinforcement and make it in compliance to the contract requirements.

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 Mohammad Fatemi (916) 227-5298, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer
