

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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014311**Date Inspected:** 21-May-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:	Jesse Cayabyab and Bernie Docena			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 L2W/L3W side plate 'C1' (1200mm to 5280mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 continue perform CJP groove (splice) welding root then fill pass. The welder was observed perform 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-D15-3042A-1. The joint being welded has a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 200 degree Fahrenheit using Miller Proheat 35 Induction Heating System located at the opposite side of the plate prior/during welding. During welding, ABF Quality Control (QC) Bernie Docena was noted monitoring the welding parameters of the welder. QA performed parameter readings during welding with the following results; 250 amperes, 24.0 volts and 310mm per minute travel speed which are deemed acceptable to contract specifications.

Upon arrival at the work site, the welder Songtao Huang was noted grinding some of the weld pass. I asked QC Bernie Docena why he was grinding and he said there was cluster of porosity noted during welding. The cause of the porosity was traced to the shielding gas hose line that was somehow kinked or stepped on by somebody during welding, according to ABF personnel. The welders have fixed the problem and resumed welding.

At OBG L1W/L2W near bottom plate 'D', ABF welder Huang Fai Tsui was observed plasma arc gouging the top

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

run off tab and the bottom cope/rat hole on various longitudinal stiffeners inside the box. After gouging, ABF welders Huang Fai Tsui and James Zhen were noted grinding the top surface of the stiffeners. Aside from grinding the top, the welders were also noted flush grinding the weld cover reinforcement of the splice butt joints.

At the same splice joint but different plate, three ABF QC were noted performing Ultrasonic Testing on the welded splice butt joint side plate 'E'. ABF QC Jesse Cayabyab and Bernie Docena were noted in the inside plate while ABF QC Steven Mc Connell was noted on the outside plate.

At OBG L2W/L3W side plate 'E' outside, ABF welder Rory Hogan with one ABF personnel were seen performing plasma arc gouging on the backing bar of the welded (from inside) splice butt joint. The welder was using A Miller plasma arc machine with the nozzle attached to the track that is remotely controlled.



Summary of Conversations:

As stated above.

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.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
