

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-015765**Date Inspected:** 22-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:	Bonifacio Daquinag and William Sherwood			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 of E line, there was no welding activity observed due to power outage. Welders who were welding at the E-line were all moved to the W-line and performed welding and other related activities.

QA randomly observed ABF/JV qualified welders Rory Hogan (ID #3186) perform CJP groove (splice) back welding cover pass on Orthotropic Box Girder (OBG) L3W/L4W bottom plate 'D2' outside. The welder was observed welding in the 4G (overhead) 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-D15-3110-4. The welder was using a track mounted welder holder assembly that was remotely controlled. The joint being welded has the backing bar gouged using the Esab Plasma Arc machine and was ground smooth. The gouged and ground splice butt joint was also Non Destructive Testing (NDT) tested using the Magnetic Particle Testing (MT). The splice joint was preheated to greater than 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System located on top of the plate prior and maintained the preheat by moving the heater blankets on the side of the plate during welding. The vicinity was also properly protected from wind and other climatic changes. During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. At the end of the shift, the welder has completed the weld cover reinforcement of the splice butt joint.

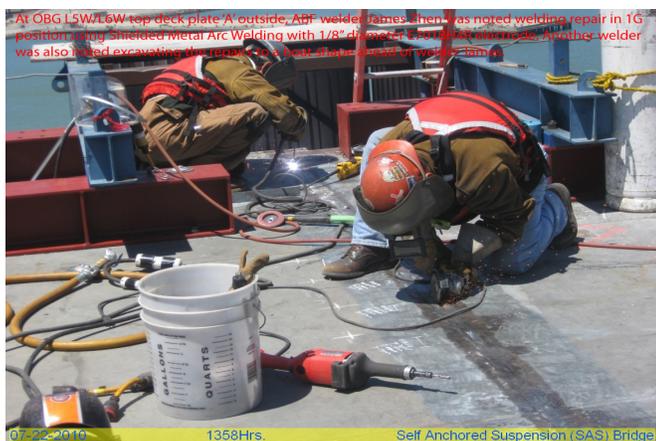
WELDING INSPECTION REPORT

(Continued Page 2 of 3)

At OBG L5W/L6W edge plate 'F' outside, QA randomly observed new ABF/JV qualified welder Xiao Jian Wan ID #9677 perform root pass welding on the splice butt joint. The welder was observed manually 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-D15-3040B-3. The joint being welded has a single V-groove butt joint with backing bar. The splice joint was preheated to greater than 150 degree Fahrenheit using propane gas torch prior welding. During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. Prior welding, QA performed a fit up alignment check on the splice butt joint. The misalignment noted during the verification was 2.0mm and lesser and the root opening was more than 5.0mm which deemed in compliance to the contract requirements.

At OBG L5WE/L6W top deck plate 'A' outside, QA randomly observed ABF/JV qualified welder James Zhen perform CJP groove welding repair. The welder was observed welding in the 1G (flat) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The ground boat shape repair excavations were preheated to more than 140 degrees Fahrenheit using propane gas torch prior welding. During the shift, ABF QC William Sherwood was noted monitoring the welder. Prior welding, ABF QC William Sherwood was also observed performing Magnetic Particle Testing (MT) using Parker Contour Probe with red magnetic powder as detecting media on the repair excavation prior welding. During the shift, the welder has completed eight welding the repairs and was working on the ninth repair at the end of the shift.

At OBG L4W/L5W side plate 'C' inside, ABF welders Huang Jin Quan and Songtao, Huang were respectively observed 3G SMAW welding fill to cover pass on 0mm to 230mm location and at 9955mm to 10555mm location of the splice butt joint. These locations were welded manually using the SMAW due to limited access when using the automatic FCAW-G track mounted Bug-o nozzle holder. The welders were using 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040A. During welding, ABF QC Bonifacio Daquinag was noted monitoring the welders' welding parameters. At the end of the shift, both welding on two locations were completed and the welders intend to go back to E-line where they have ongoing side plate welding after the power restoration.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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 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
