

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014490**Date Inspected:** 27-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:	Jim Cunningham and William She			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.

QA randomly observed ABF/JV qualified welders Rory Hogan (ID #3186) continue perform CJP groove (splice) back welding fill pass on Orthotropic Box Girder (OBG) L2W/L3W side plate 'E2' outside. The welder was observed back 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 is 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 and maintained to greater than 150 degree Fahrenheit using Miller Proheat 35 Induction Heating System located at the other side of the plate prior/during welding. The vicinity was also properly protected from wind and other climatic conditions. During welding, ABF Quality Control (QC) Jim Cunningham was noted monitoring the welding parameters of the welder.

At OBG L2W/L3W side plate 'C' outside, two ABF welders Bryce Howell and Mike Maday were observed performing back gouging on the splice butt joint of 'C' plate. The personnel were using Esab plasma arc gouging machine with nozzle holder mounted to a track. During the shift, gouging of the backing bar and some of the base metal was not completed and will continue tomorrow.

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At OBG L3W/L4W edge plate 'F' outside, new ABF welder Xiao Jian Wan ID# 9677 prepared his welding equipment to perform 3G FCAW-G welding on the splice butt joint. QA had asked ABF QC William Sherwood if the alignment has been checked. QC responded to QA and said it has only 1 to 2mm misalignment. QA verified the alignment and it was noted to be 4.0mm. Due to the observed unacceptable misalignment, ABF personnel have reworked on the fit up by using fitting gears and adjusted the misalignment to acceptable reading.



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.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer