

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-014684**Date Inspected:** 10-Jun-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 Bonifacio Daqui			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) perform CJP groove (splice) back welding fill pass on Orthotropic Box Girder (OBG) L2W/L3W side plate 'C2' 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 200 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. ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder.

At OBG L5E/L6E edge plate 'F' outside, QA randomly observed welder Xiao Jian Wan welding root pass on the splice butt joint. The welder was using FCAW-G in 3G (vertical) position. Prior to welding the fit up was inspected and accepted by ABF QC. QA performed fit up/alignment verification on the joint and noted less than 2mm offset all throughout the joint which appears acceptable to the contract requirements. Welding and welding parameters was monitored by ABF QC Steven Mc Connell. QA also performed verification on the parameter and

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noted readings of 225 Amperes and 22.6 voltages during welding which appear acceptable to contract requirements.

At OBG L4E/L5E side plate 'E' outside, QA randomly observed ABF welder Rick Clayborn tack welding fitting gear/temporary attachment. The welder was welding in 4F (overhead) position using 1/8" diameter E7018H4R electrode. QA noted ABF QC Bonifacio Daquinag monitoring the welder and his parameter. During the shift, welding of the fitting gear/temporary attachment was completed and the backing bar was also put in place. After installing the backing bar, ABF QC went inside the box and checked the alignment. QC informed QA that during the initial measurements of the alignment he was getting 4.5mm and 3.0mm misalignment on some areas which he said still need more adjustment.



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.

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