

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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012998**Date Inspected:** 14-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1100**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Tom Pasqualone and Jim Cunningham			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) and Jeremy Dolman (ID #5042) perform CJP groove (splice) back welding fill to cover pass on Orthotropic Box Girder (OBG) L2E/L3E plate 'C' (4000 to 8000mm / outside). The welders were 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-D15-3040A-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 prior welding and the vicinity was properly protected from wind. During welding, ABF Quality Control (QC) Jim Cunningham was noted monitoring the welding parameters of the welder. During the shift, welding in this location was completed at around 1430 hours. ABF QC informed this QA that he will be monitoring the post weld heat maintenance of >200 degree Fahrenheit for the next 3-hours.

At OBG L2E/L3E side plate 'E' (10155mm to 10555mm) inside, QA observed ABF welder Songtao Huang ID #3794 perform SMAW welding in vertical (3G) position. This area was left by the welders few days ago and now they came back to complete it. The welder was noted using E7018H4R, with 1/8" diameter electrode. While in this

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area, the welder also welded the burn through (hole) that occurred during the plasma arc gouging of plate 'D' backing bar. The welder was noted using the same process in flat (1G) position. Backing bar was also put in place at the opposite side of the plate before welding and the hole was ground/cleaned using a die grinder. ABF QC Tom Pasqualone was noted monitoring the welder and welding parameters

At the other end of same plate 'D' (inside) mentioned above, another ABF welder Rory Hogan was also noted welding using SMAW on the burn through (hole) that also occurred during the plasma arc gouging of plate 'D' backing bar. The welder was noted using E7018H4R, 1/8" diameter electrode. Backing bar was also put in place at the opposite side of the plate before welding and the hole was ground/cleaned using a die grinder. ABF QC Jim Cunningham was noted monitoring the welder and welding parameters



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
