

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-014985**Date Inspected:** 15-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:	William Sherwood 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 Cross Beam number 4, QA observed Cabrillo Hoist (Elevator) welder Jeff Livesey perform Shielded Metal Arc Welding (SMAW) fillet welding between the 3" x 3" x 3/16" tube steel to the top section of the cross beam under the direction of ABF Bolting Crew Superintendent David Mache. The welder was using 1/8" diameter E7018H4R electrode. ABF QC Bernie Docena saw the new welder welding and asked ABF Superintendent Dan Ieraci if he knew the new welder. Dan Ieraci responded that he is unaware of the new welder and he stopped him from doing more welding. Due to miscommunication between the two superintendents, Mr. David Mache called Mr. Jim Davidson who came to site while Dan Ieraci called QC Manager Jim Bowers. They had a conversation and they decided to replace the Cabrillo Hoist welder with ABF certified welder. ABF QC William Sherwood instructed ABF welder to grind off the weld that the Cabrillo welder has welded which Mr. David Mache objected and called Mr. Jim Davidson again who also called Jim Bowers. According to their conversation, Mr. Jim Davidson informed QA that Mr. Jim Bowers advised him that the weld could stay but need to be visually and Magnetic Particle Testing (MT) tested which the QC did. Since the Cabrillo Hoist welder Jeff Livesey has welded in this job without the proper submittal and approval of his qualification papers prior to welding which is in contrary to the requirements of the Special Provisions, an Incident Report was generated due to this occurrence.

At OBG L4W/L5W bottom plate 'D' inside, QA randomly observed welder ABF welder Mike Maday continue welding fill pass on the splice butt joint. The welder was noted using Submerged Arc Welding (SAW) welding the

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groove splice butt joint in flat (1G) position. The welder was utilizing F7A6-EM12K-H8, 3.2mm electrode with corresponding Esab OK Flux 10.62 flux and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1. The plates being welded have a backing bar attached to the other side and preheated and maintained to greater than 150 degree Fahrenheit using Miller Proheat 35 Induction Heating System located on the opposite side of the plate prior welding. The welding parameters were monitored by ABF QC Bernie Docena. QA performed parameter check at the time of welding and noted an ampere reading of 545 amperes, 32.4 voltages and a travel speed of 400mm per minute. The welding parameters appear in conformance to the contract requirements. SAW welding was not completed during the shift and should continue tomorrow.

QA randomly observed ABF/JV qualified welder Mitch Sittinger perform CJP groove (splice) back welding fill pass on Orthotropic Box Girder (OBG) L3E/L4E plate 'D' 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-D15-3040A-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 splice joint was preheated to greater than 150 degree Fahrenheit prior welding and the vicinity was properly protected from wind and other weather conditions. During welding, ABF Quality Control (QC) Jim Cunningham was noted monitoring the welder and his welding parameters.

At OBG L5E/L6E edge plate 'B' outside, ABF welder Xiao Jian Wan moved to this location and prepared his welding machine and other accessories. There was no welding performed in this location today due to power failure during the shift.



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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