

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-013404**Date Inspected:** 22-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:	William Sherwood and Bernie Do			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 L3E/L4E deck plate 'A' inside, QA randomly observed ABF/JV qualified welder Chun Fai Tsui ID # 3426 perform overhead termination welding from one end of backing bar to edge plate 'F'. The welder was observed welding in the overhead (4F) position using Shielded Metal Arc Welding with E7018H4R, 1/8" diameter electrode. The welding being made is a termination and connection from one end of the deck plate 'A' backing bar to the edge plate 'F' in reference to Request For Information (RFI) ABF-RFI-002097R00 dated March 19, 2010. The termination welding on this location was monitored by ABF QC William Sherwood. During the shift, welding was completed but was visually not accepted by ABF QC due to some minor welding issues.

After completing welding on the location mentioned above, the welder moved to OBG L2E/L3E edge plate 'F' (bottom corner) where he continued the CJP welding of the splice butt joint and tied it into the 'E' plate. The welder had used the same process as mentioned above but with different size of electrode which is 5/32". The welding on this location was also monitored by ABF QC William Sherwood and was still continuing at the end of the shift.

At the same splice butt joint but at the opposite edge plate 'B', QA also randomly observed ABF/JV qualified welder James Zhen ID #6001 perform overhead termination welding from one end of backing bar to edge plate 'B'. The welder was observed welding in the overhead (4F) position using Shielded Metal Arc Welding with

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E7018H4R, 1/8" diameter electrode. The welding being made is a termination and connection from one end of the deck plate 'A' backing bar to the edge plate 'B'. The termination welding on this location was monitored by ABF QC Barry Drake.

At OBG L1E/L2E side plate 'C' outside, QA randomly observed ABF/JV qualified welder Rick Clayborn ID #2773 perform CJP groove welding repair. The welder was observed welding in the 4G (vertical) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" and 5/32" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The repair being welded was at location 2235mm to 2490mm of side plate C2 and the one completed was at location 5047mm to 5277mm of side plate C2. The weld repairs were excavated to a boat shape and the plates were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Bernie Docena was noted monitoring the welder. Prior welding, the excavations that were welded were tested using Magnetic Particle Testing (MT) during the earlier shift by ABF QC Jim Cunningham according to QC Bernie Docena.

At OBG 3E/4E side plate 'E' outside, plasma arc gouging of the backing bar was completed. ABF personnel were seen grinding the gouged groove areas in preparation for the back welding.



At OBG L2E/L3E side plate 'C2' outside, ABF welder Rick Clayborn is seen performing overhead (4G) SMAW welding repair at location 5047mm to 5277mm.

04-22-2010 1412Hrs Self Anchored Suspension (SAS) Bridge



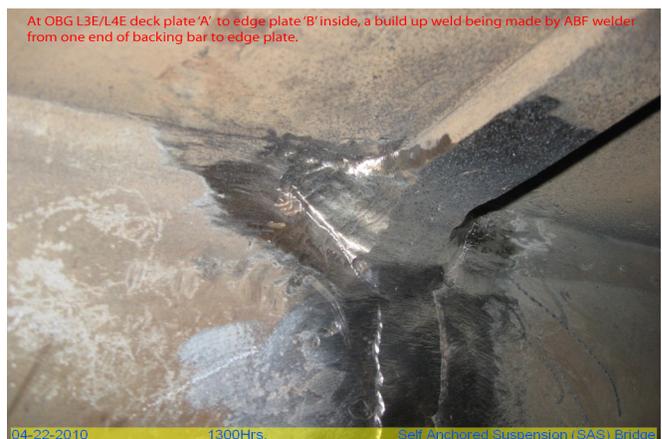
At OBG L3E/L4E side plate 'E' outside, ABF welders Rory Hogan and Jeremy Dolman are seen performing plasma arc gouging/removal of the backing bar of the splice butt joint.

04-22-2010 1312Hrs Self Anchored Suspension (SAS) Bridge



At OBG L2E/L3E side plate 'C2' outside, various boat shape excavations were made on the repair locations detected using the Ultrasonic Testing (UT). Excavations were also Magnetic Particle Testing (MT) tested prior welding.

04-22-2010 1445Hrs Self Anchored Suspension (SAS) Bridge



At OBG L3E/L4E deck plate 'A' to edge plate 'B' inside, a build up weld being made by ABF welder from one end of backing bar to edge plate.

04-22-2010 1300Hrs Self Anchored Suspension (SAS) Bridge

Summary of Conversations:

As stated above.

Comments

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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
