

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018988**Date Inspected:** 28-Dec-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:	Fred Von Hoff and John Pagliero			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 the following locations, this QA performed Visual Test (VT) and Magnetic Particle Testing (MT) on the completed lifting lug removal. ABF personnel have used oxy-acetylene cutting torch to cut the lifting lugs to small pieces then used carbon air arc gouging to cut the small pieces remnants and flush ground the surface using a flapper disc. ABF QC Mike Johnson and William Sherwood have performed their VT and MT and then called QA for the verification. The results of the VT and MT were deemed satisfactory and in compliance to the code.

1. OBG 1W-PP8.5-W4-#2 – QA VT/MT verified.
2. OBG 1W-PP8.5-W3-#4 – QA VT/MT verified.
3. OBG 1W-PP9.5-W4-#2 – QA VT/MT verified.
4. OBG 1W-PP9.5-W3-#4 – QA VT/MT verified.
5. OBG 1E-PP8.5-E4-#4 – QA VT/MT verified.
6. OBG 1E-PP8.5-E3-#2 – QA VT/MT verified.
7. OBG 1E-PP9.5-E4-#4 – QA VT/MT verified.
8. OBG 1E-PP9.5-E3-#2 – QA VT/MT verified.

At OBG 8E/9E side plate 'C2' (5277mm to 9355mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 continuing to perform CJP groove (splice) welding fill pass on the splice butt joint. The

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welder was observed perform automatic welding in the 3G (vertical) 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-D15-3042A-1. The joint being welded has a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System heater blankets located at the opposite side of the plate prior/during welding. During welding, ABF Quality Control (QC) Fred Von Hoff was noted monitoring the welding parameters of the welder. At the end of the shift, fill pass welding on the splice butt joint was not completed and should continue tomorrow.

At OBG 7W/8W top deck plate 'A1' outside, QA randomly observed ABF/JV qualified welder Wai Kitlai perform CJP repair welding. The welder was noted welding in 1G (Flat) position utilizing Shielded Metal Arc Welding (SMAW) with 5/32" diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1001 Repairs. The repair which was located at A1 Y-dimension 10mm and having excavation profile of 95mm long x 20mm wide x 17mm deep was excavated to a boat shape profile and was tested with Magnetic Particle Testing (MT) prior welding. During welding, ABF QC Pat Swain was noted monitoring the welder and his welding parameters. Welding parameter measured at the time of welding was 175 amperes which appears in compliance to the WPS. During the shift, the repair at this location was completed and the welder has moved to OBG 8W/9W top deck plate 'A' to perform more repairs. But due to heavy and continuous rain that was experienced today, no more repair welding was done.

At OBG 8E/9E LS1 longitudinal stiffener inside, QA randomly observed ABF/JV qualified welder Xiao Jian Wan ID #9677 perform CJP groove welding repair. The welder was observed welding in the 3G (vertical) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E9018H4R electrode implementing welding procedure ABF-WPS-D15-1002-Repairs. The repair which was located at Y-dimension 0mm and having excavation profile of 80mm long x 30mm wide x 22mm deep was preheated to more than 200 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC John Pagliero was noted monitoring the welder. Prior welding, ABF QC John Pagliero was also observed performing Magnetic Particle Testing (MT). Repair welding at this location was completed at the end of the shift.

At OBG 7E/8E side plate 'C2' inside, QA randomly observed ABF/JV qualified welder Fred Kaddu ID # 2188 continuing to perform CJP groove welding repair. The welder was observed welding in the 3G (vertical) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1001-Repairs. The boat shape repair excavations having various dimensions were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Fred Von Hoff was noted monitoring the welder. Prior welding, ABF QC John Pagliero was also observed performing Magnetic Particle Testing (MT). There were no defects noted during the test. The following first time repairs were noted excavated and completely welded at the end of the shift;

Location	Y-dimension	Length	Depth	Remarks
1. C2	2750mm	125mm	10mm	Completed
2. C2	4890mm	120mm	10mm	Completed

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At OBG 8E/9E LS1 longitudinal stiffener inside, ABF welder Xiao Jian Wan was noted excavating the repair using die grinder.



12-28-2010

1031 Hours

Self Anchored Suspension Bridge

At OBG 1E-PP0.5-E4-4 lifting lug removal, a surface profile of the ground base metal after cutting, carbon arc gouging of the remnants and flush grinding.

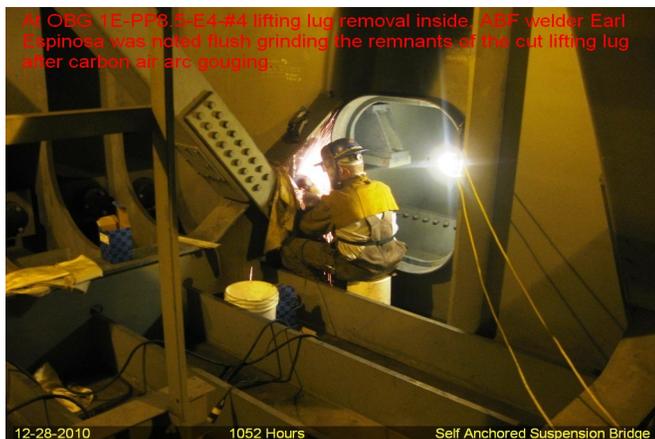


12-28-2010

1536 Hours

Self Anchored Suspension Bridge

At OBG 1E-PP0.5-E4-4 lifting lug removal inside, ABF welder Earl Espinosa was noted flush grinding the remnants of the cut lifting lug after carbon arc gouging.



12-28-2010

1052 Hours

Self Anchored Suspension Bridge

At OBG 8E/9E side plate 1E inside, ABF welder Songtao, Huang was observed performing Flux Cored Arc Welding (FCAW-G) on splice butt joint.



12-28-2010

1407 Hours

Self Anchored Suspension Bridge

Summary of Conversations:

No significant conversation occurred today.

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 Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Mertz, Robert

QA Reviewer