

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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028615**Date Inspected:** 20-Oct-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Salvador Merino and Barry Drake			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:	SAS OBG		

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 5E-PP-29.5-E5 deck access hole inside, QA randomly observed ABF/JV qualified welder Lou Xiao Hua continuing to perform CJP groove welding repair. The welder was observed welding in the 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1001-Repairs. The repair excavation was preheated to more than 150 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Barry Drake was noted monitoring the welder. Prior welding, ABF QC Brian Connolly was also observed performing Magnetic Particle Testing (MT) on the repair excavations prior welding repair. There were no significant defects noted during the test. The following second time repairs were noted excavated and welded during the shift;

Y-location	Length	Width	Depth	Remarks
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- | | | | | |
|----|--------|-------|-----------|-------------------|
| 1. | 635mm | 130mm | 40mm 11mm | R2 – excavated. |
| 2. | 3510mm | 80mm | 36mm 12mm | R2 – in progress. |
| 3. | 4190mm | 100mm | 40mm 12mm | R2 – excavated. |

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At OBG 2W-PP13.5-W2 N deck access hole inside, QA randomly observed ABF/JV qualified welder Ric Clayborn continuing to perform CJP groove welding repair due to UT detected defect and heat transfer mark using oxy-propylene gas torch. The welding repair is being performed on three (3) various locations per Caltrans approved Request for Weld Repair (RWR) # 201209-114 through 116. The welder was observed welding in the 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The repair excavations were excavated using carbon air arc gouging with preheat temperature of more than 150°F using propylene gas torch prior excavation. The groove of the excavation was ground smooth and tested by ABF QC Salvador Merino using Magnetic Particle Testing (MT). During welding repair, the repair area and its vicinity was preheated to more than 150 degree Fahrenheit using propylene gas torch prior/during welding. During the shift, ABF QC Salvador Merino was noted monitoring the welder with measured working current of 170 amperes on 4.0mm E7018H4R electrode. At the end of the shift all three excavations from the top were completed. However, contractor's recommended WPS to be used (listed in the RWR) during welding repair were not implemented due to non-conformity to the joint configuration and this was brought to the attention of Lead QA Rodney Patterson. The following repairs were noted excavated and welded from the bottom during the shift;

Y-location Length Width Depth RWR# Remarks

1. 415mm 115mm 65mm 12mm 201209-114 Completed.
2. 1195mm 135mm 60mm 11mm 201209-115 Completed.
3. 3365mm 150mm 70mm 11mm 201209-116 Completed.



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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 Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Reyes, Danny

QA Reviewer