

**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-028246**Date Inspected:** 21-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	Bernie Docena and Barry Drake	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes	No N/A
		<b>Delayed / Cancelled:</b>	Yes	No N/A
<b>Bridge No:</b>	34-0006	<b>Component:</b>	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 13W, this QA together with fellow QA Robert De Armond have just completed inspection from the inside of the OBG when we came out the box and saw one ABF personnel/apprentice Joshua Washington just completed the burning/heating of four (4) locations on the weld 13W-W2.1-@10100 to apparently transfer the Ultrasonic Testing (UT) reject location to the bottom side of the welded joint for more accuracy. The ABF personnel has used oxy-propylene gas torch to perform the heating/burning of the weld. This was done at Y locations of the joint Y=2480mm, Y=5180mm, Y=7910mm and Y=9250mm. When the ABF personnel was asked what he was doing, he replied saying he knows what he was doing and this is per instruction from somebody. When asked again who was that somebody he said that is a top secret that he cannot divulge. Due to severity of the incident, it was immediately relayed to Lead QA Danny Reyes who also talked to Lead ABF QC Bonifacio Daquinag.

At OBG 13W-W2.8 @ 12570 drop-in top deck plate inside, QA randomly observed ABF/JV qualified welder Rick Clayborn continuing to perform CJP groove welding repair from location Y=4200mm to Y=5000mm. The repair was having boat shape excavation profile of 750mm long x 35mm wide x 13mm deep and it is being repaired per Request for Weld Repair RWR# 201208-001. The welder was observed welding in the 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1004-Repairs. During the shift, ABF QC Barry Drake was noted monitoring the welder

# WELDING INSPECTION REPORT

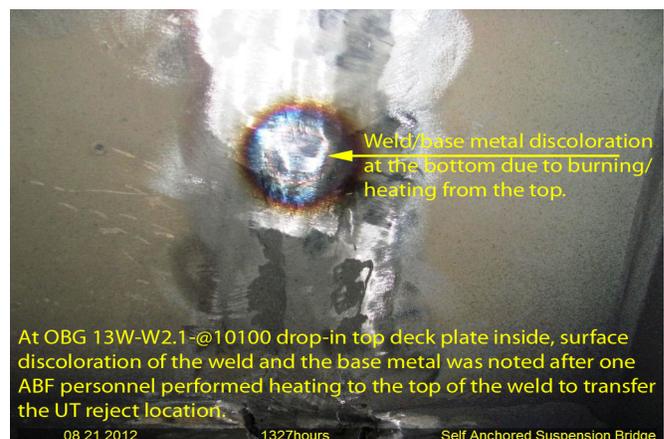
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with measured working current of 132 amperes on 3.2mm E7018H4R electrode. During the shift, repair welding at location mentioned above completed and the welder has moved to another location.

At OBG 13W-WK-WP1 K-plate, ABF welder Lin E Yun was observed continuing to perform repair welding. Prior to perform the repair, the welder was noted excavating the UT detected defects using carbon air arc gouging then ground smooth the groove of the excavation. ABF QC Bernie Docena was noted performing the Magnetic Particle Testing (MT) on the defect removal with no relevant defect noted during the test. The repair was located at Y=430 and was having boat shape excavation profile of 100mm long x 30mm wide x 11mm deep. After the completion of the MT, welder Lin E Yun was observed welding in the 3G (vertical) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. During the shift, ABF QC Bernie Docena was noted monitoring the welder with measured working current of 120 amperes on the 3.2mm E7018H4R electrode. During the shift, repair welding at location mentioned above was completed and the welder has moved to another weld location but the same K-plate, 13W-WK-SK1. The welder was noted adding more weld to cover due to ABF QC visual test (VT) reject. The welder was noted using the same process but implementing different Caltrans approved procedure ABF-WPS-D15-1072. The welder performed the 2G (horizontal) SMAW welding cover pass until the end of the shift wherein he was not able to complete the weld joint.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on the CJP welding of drop-in floor beam flanges, longitudinal diaphragm (LD) stiffener plate butt joint and K-plate stiffener butt joint. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

1. 13W-PP121.5-W2.5 BF1 – drop-in floor beam flange weld cover QA verified.
2. 13W-PP121.5-W2.5 BF2 – drop-in floor beam flange weld cover QA verified.
3. 13W-PP124.65-W3 stiffener 'A' – longitudinal diaphragm (LD) stiffener butt joint weld cover QA verified.
4. 13W-WK-S1 – K-plate stiffener butt joint weld cover QA verified.

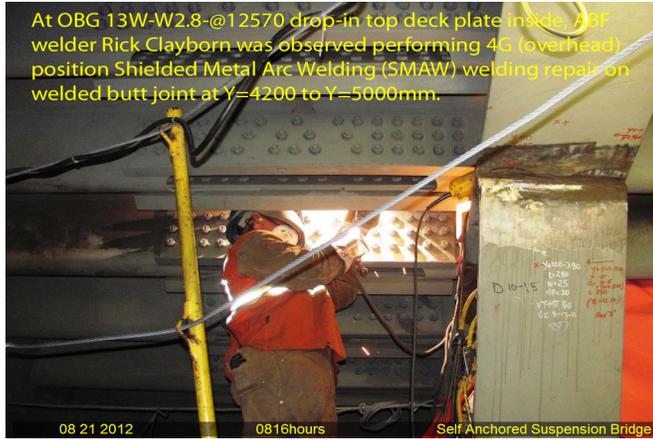


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# WELDING INSPECTION REPORT

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## Summary of Conversations:

At 13W-W2.1-@10100, an ABF personnel Joshua Washington was noted burning/heating the welded joint to transfer the UT reject location. When the ABF personnel was asked what he was doing, he replied saying he knows what he was doing and this is per instruction from somebody. When asked again who was that somebody he said that is a top secret that he cannot divulge. Due to severity of the incident, it was immediately relayed to Lead QA Danny Reyes who also talked to Lead ABF QC Bonifacio Daquinag concerning the incident.

## 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.

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**Inspected By:** Lizardo, Joselito

Quality Assurance Inspector

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**Reviewed By:** Levell, Bill

QA Reviewer