

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-028289**Date Inspected:** 30-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**CWI Name:** 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 12W/13W side plate C1.1 outside, QA randomly observed ABF/JV qualified welder Rick Clayborn continuing to perform CJP groove welding repair on a Seismic Performance Critical Member (SPCM) welded splice butt joint. After completing the repair on the bottom side of the welded splice butt joint, the welder has started excavating/carbon air arc gouging the whole length of the top side of the same weld joint. The welder was noted preheating the weld joint repair from the inside using propylene gas torch at more than 225°F prior the excavation. The excavation on the top whole length of 2400mm was completed and the groove was noted ground smooth by Mike Jimenez. ABF QC Pat Swain was noted performing visual test (VT) on the excavation and then performed Magnetic Particle Testing (MT) with no relevant indication noted during the test. This QA performed the same tests VT/MT and noted same results.

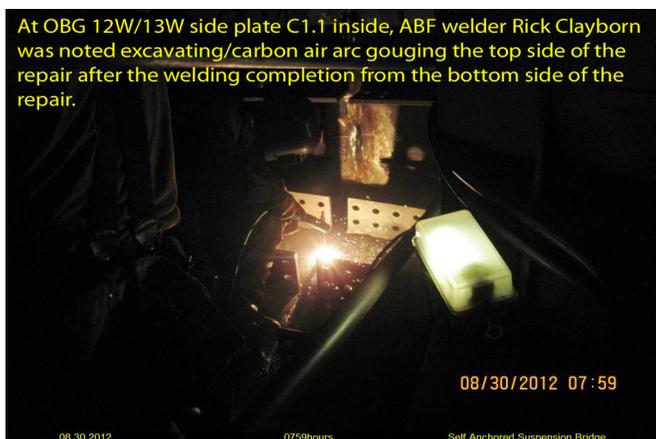
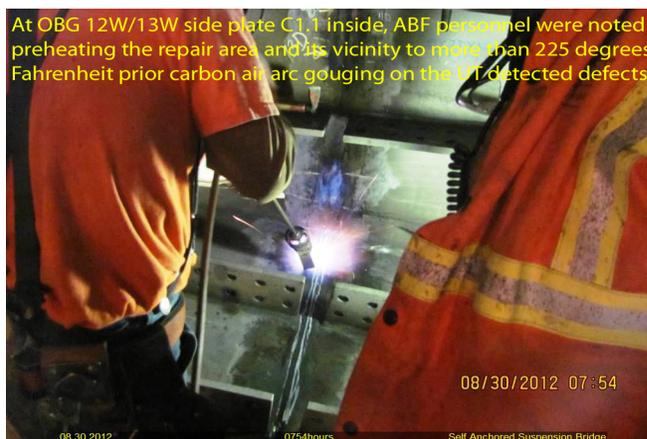
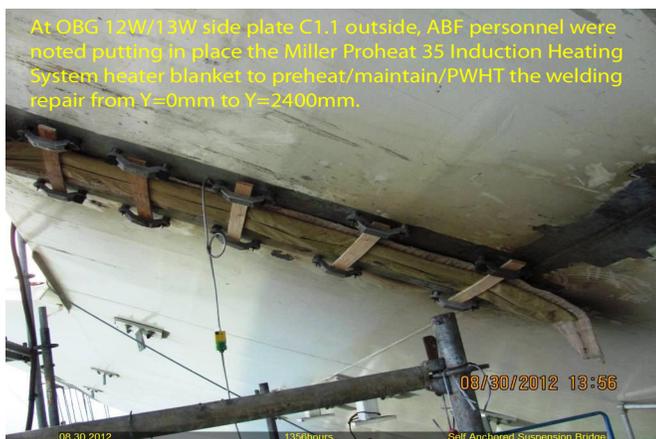
ABF foreman Rick Clayborn instructed other personnel to preheat the weld joint repair from the outside using the same propylene gas torch. Two ABF personnel were noted at the bottom of the weld joint repair (outside) preheating the bottom of the repair. The two personnel were also noted moving the torches from side to side of the weld joint repair and tried to distribute the heat evenly with some degree of difficulty maintaining the required 325°F preheat. ABF welders Rick Clayborn and Mike Jimenez were observed 3G SMAW welding repair on the top of the repair where the preheat was more than 325°F. Due to this situation, this QA informed ABF Superintendent Scott Smith that his personnel were having difficulty maintaining the preheat much more when

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they perform the 450°F Post Weld Heat Treatment (PWHT) on the same repair. Mr. Smith responded to this QA that he will talk to the foreman Rick Clayborn to discuss the situation. After Mr. Smith's discussion with Rick Clayborn, it was later learned that ABF will use the Miller Proheat 35 Induction Heating System to preheat the repair welding. While trying to gather the Miller Proheat machine and its accessories, two (2) ABF personnel were noted preheating the weld repair area using two propylene gas torches in tandem trying to maintain the preheat temperature. Minutes later, the heating system was switched to Miller Proheat 35 Induction System.

As soon as the preheat of 325°F was attained using the Miller Proheat 35, ABF welders Mike Jimenez and Rick Clayborn were observed performing 3G (vertical) position Shielded Metal Arc Welding (SMAW) welding repair on welded splice butt joint. The welders were noted using 4.0mm E7018H4R electrode implementing Caltrans approved welding procedure ABF-WPS-D15-1004 Repair. ABF QC Barry Drake was noted monitoring the welders with measured working current of 180 amperes and 178 amperes respectively for Mike Jimenez and Rick Clayborn. ABF welder Rick Clayborn left at noon while Mike Jimenez continued 3G SMAW repair welding till the end of shift wherein he was not able to complete the repair. Repair welding will continue tomorrow.



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

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for your project.

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
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Reviewed By:	Levell, Bill	QA Reviewer
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