

**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-028248**Date Inspected:** 23-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:** Scott Kourtum**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 13W-PP122.5-W2.8 BF2 drop-in floor beam inside, ABF welder Lin E Yun was observed continuing to perform repair welding. The welder was noted excavating the UT detected defect using carbon air arc gouging then ground smooth the groove of the excavation. ABF QC Scott Kourtum was noted performing the Magnetic Particle Testing (MT) on the defect removal with no relevant defect noted during the test. The first time repair was located at Y=40 and was having boat shape excavation profile of 90mm deep x 20mm wide x 16mm deep. After the completion of the MT, welder Lin E Yun 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-D15-1000-Repairs. During the shift, ABF QC Scott Kourtum 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 called the same QC to give preliminary UT on the just concluded welding repair. During QC UT, the ABF QC has rejected the repair and then told the welder to perform second time repair. The same repair was excavated from the top using grinder and after the completion of the excavation ABF QC Scott Kourtum performed MT with no relevant indication noted. The boat shape excavation located at Y=35mm was having excavation dimensions of 95mm long x 27mm wide x 15mm deep. The welder was noted welding at 1G (flat) position utilizing the same process and implementing the same procedure. During the shift, the said welding repair was completed and the welder has moved to another location.

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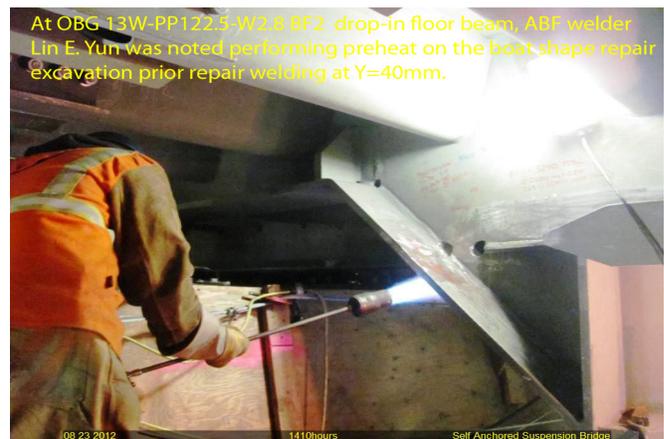
At OBG 13W-PP122-W2.5 BF1 drop-In floor beam inside, ABF welder Lin E Yun was noted excavating the bottom side of the flange welded butt joint due to UT detected defects. The welder was excavating two UT rejects at locations Y=120mm and Y=260mm when the shift was almost over and was not able to complete the excavations.

At the request of ABF personnel, this QA has performed visual inspection and Magnetic Particle Testing (MT) on the lifting lug bracket removal at 13W-PP124.65-W3 (north side) that was ground smooth to 3:1 slope per RFI ABF-RFI-001151R01 dated March 31, 2008. During the verification, all four bracket remnants that were ground were in compliance to the ABF-RFI-001151R01 dated March 31, 2008 required slope of 3:1 ratio and the MT performed on these remnants revealed three (3) were in compliance whereas one has linear indication that still needs to be fixed. The results of the verification were relayed to ABF QC Scott Kourtum and ABF foreman Ric Robles.

After the verification/completion of the lifting lug brackets removal mentioned above, the same ABF personnel have requested this QA to perform the same verification on another location. At 13W-PP124.65-W3 (south side), all four remnants of the lifting lug bracket removal were not in compliance to the slope requirement and they are already painted. As part of the MT requirements, the painting should be removed on these remnants so MT could be performed if they pass the VT/slope ratio. The lifting lug bracket removal at this location was rejected by this QA and it was relayed to ABF QC William Sherwood and ABF foreman Ric Robles.

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 welds. 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-PP122.5-W2.8 BW1 – drop-in floor beam web splice weld cover QA verified.
2. 13W-PP122.5-W2.8 BF1 – drop-in floor beam web to web CJP T-joint and fillet weld cover QA verified.

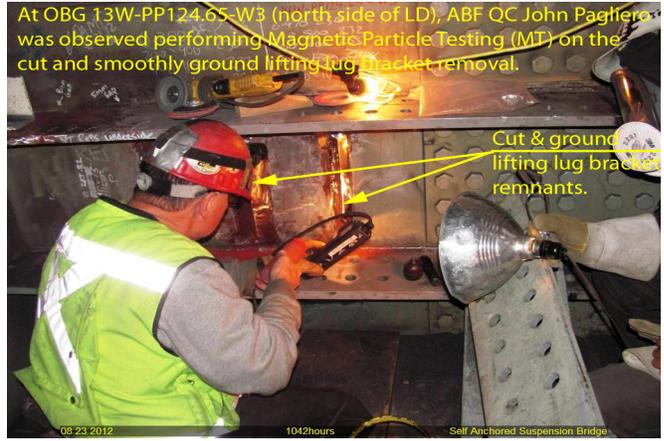
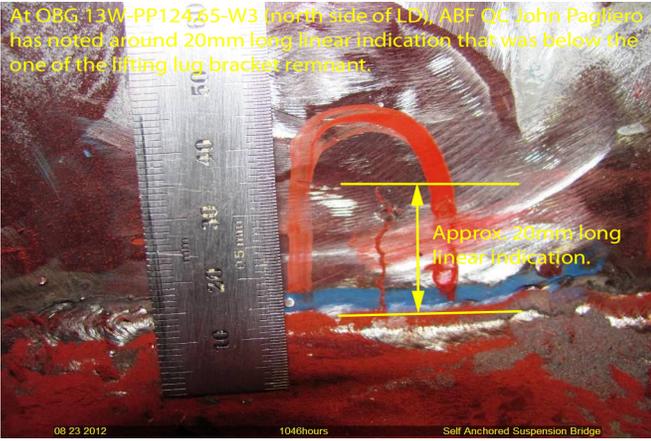


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## Summary of Conversations:

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 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