

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-028398**Date Inspected:** 15-Sep-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:** S.A.S. Job site**CWI Name:** Pat Swain, 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:** S.A.S. Structure**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project.

The QAI was tasked with monitoring the welding and repairs being performed by ABF welder Rick Clayborn, ID 2773. The QAI was informed that the repairs at Deck Access Hole (DAH) at pp124.5, line W5, bottom side (face B) will be completed. The QAI noted that this weld is designated as SPCM. The repair locations are Y=125mm, Y=1685mm and Y=4150mm. The QAI observed that during the welding, the preheat and interpass temperatures were maintained and the welding parameters were within the ranges listed on Welding Procedure Specification (WPS) ABF-WPS-D15-1004-Repair. The QAI noted that the welding was monitored by the Quality Control Inspector (QCI) Pat Swain. Upon completion of the welding, the weld was heated to 425F for 1 hour. This was monitored by the QCI and verified by the QCI.

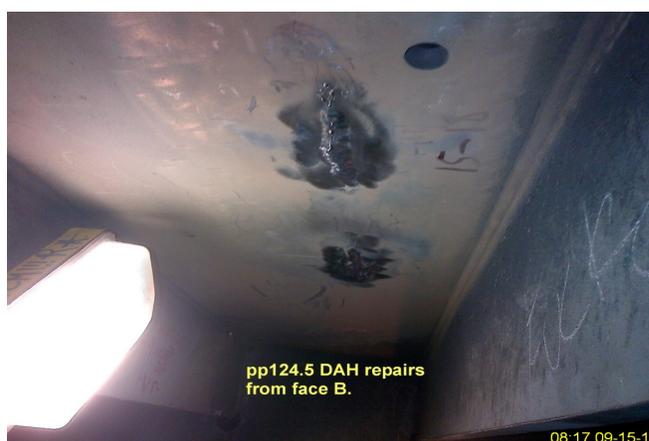
The QAI noted that work on longitudinal stiffeners (LS) is continuing in OBG 12W at panel point (pp) 111.1, adjacent to the corner assembly splice welds. The QAI observed welding of the retrofit plate between LS2 and LS3. The QAI noted that the welding is being monitored by the (QCI) Barry Drake. The QAI noted that vertical fillet welds (3F) are being made at this location. The QAI noted that ABF-WPS-D15-F1200A is being utilized with an elevated preheat temperature due to the LS being grade 485W. The QAI left the immediate work area and upon return, at approximately 1005 hours, the QAI observed a propylene torch burning unattended, inside the OBG structure at pp111.1. The QAI noted that the contractor's break time is scheduled from 1000 to 1015 hours and determined that the welder and other personnel are taking break and not in the OBG structure. The QAI extinguished the torch by turning off the fuel source and noted that the torch has been welded onto the LS3 to keep

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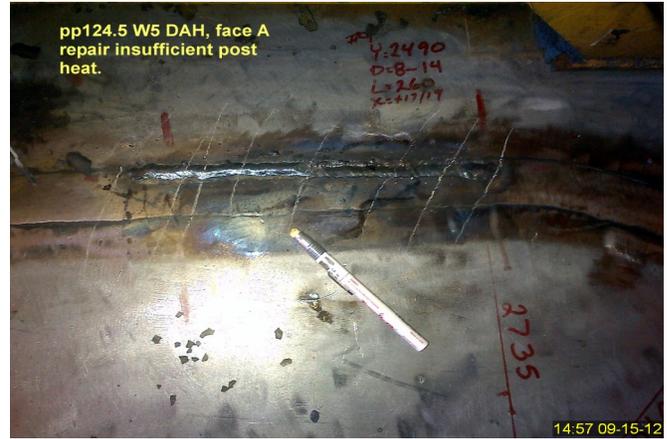
it in position to maintain preheat on the incomplete retrofit fillet weld. The QAI immediately went to notify ABF and Caltrans personnel of the gross safety concern. The QAI notified ABF safety representative Barry and via Caltrans Engineer Doug Wright, Caltrans Safety rep Grady Hart was informed. The QAI also showed the area burned to Caltrans Engineer Sebastian Mofor. While showing Mr. Mofor, the QAI noted that the welded torch has been removed and part of the LS3 has been ground clean. The QAI informed the QCI of the observation and asked the QCI if he was aware of this. The QCI responded that he was at break and had not seen the welded torch or knew that it was burning unattended inside the OBG structure. The QAI did not raise this question with the welder, as it has already been reported to ABF safety. Upon completion of the welding, the QAI noted that inspection will not be completed until the required cooling time is achieved. The QAI issued a non-conforming incident report regarding the torch being welded onto LS3 and potential base metal damage. Reference the TL-15IR for additional information. See the attached photos.

The QAI was informed that repairs at DAH, pp124.5, line W5, top side (face A) will be performed. The QAI noted that this weld is designated as SPCM. The QAI witnessed the excavation of the DAH weld that has been identified by QCI examination as rejectable. The location chosen for repair is Y=2490mm and after excavation the dimensions are: Y=2490; 18mm W; 11.5mm D; 300mm L. The QAI noted that the excavations were examined with MT by the QCI Pat Swain. The QAI observed that during the welding, the preheat and interpass temperatures were maintained and the welding parameters were within the ranges listed on ABF-WPS-D15-1004-Repair. The QAI noted that the welding was monitored by the QCI Pat Swain. At 1415 hours, the QAI noted that welding is still in progress and asked how long the work would continue, as there is a 1 hour post heat required. The welder replied that they would stop now and begin the post heat. The QAI monitored that the post heat was being performed to 450F and returned at 1500 hours to verify. Upon return to the weld repair, the QAI noted that there are no welders or workers in the area and the weld was not being heated. The QAI verified that the temperature of the weld repair was significantly less than the required 450F. The QAI informed the QCI William Sherwood, as he was in the vicinity. The QAI issued a non-conforming incident report regarding the lack of post heat on the weld repair. Reference the TL-15IR for additional information. See the attached photo.



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Summary of Conversations:

The QAI relayed the observation of the welding and repairs to the QAI William Clifford and the QAI Lead Bill Levell. The QAI had several conversations with Caltrans personnel regarding the torch burning inside the OBG structure. The QAI expressed concern of the safety hazards observed. Except as described above, there were no other notable conversations.

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

Inspected By: Croff, Scott

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer
