

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-028154
Date Inspected: 12-Aug-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: jobsite

CWI Name: See Body of Report
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: Yes No N/A
Approved WPS: Yes No N/A
Delayed / Cancelled: Yes No N/A
Component: OBG

Bridge No: 34-0006**Summary of Items Observed:**

Quality Assurance inspector (QA) Matthew Daggett was at the American Bridge/Flour (ABF) job site at the San Francisco/Oakland Bay Bridge in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. Welding of 13W/14W Plate G
2. Weld Repairs 12W-A1.2

13W/14W Plate G

Due to the contractor choosing to weld prior to getting engineer approval for the poor fit up an Incident Report was issued on the above-mentioned welded splice. At the time of this report the joint exhibited a 3mm to 5mm offset with a maximum root opening of 20mm.

The QA inspector periodically observed the in process Shield Metal Arc Welding being performed by ABF welding personnel Jim Quan Huang (9340) on 13W/14W Plate G vertical splice. The welder spent the shift depositing the root passes and fill passes with approximately 20% being completed at the end of the shift. QC inspector Fred Michels was noted to be present in order to monitor the progress and ensure the welding was within the established Welding Procedure Specification (WPS) noted as ABF-WPS-D15-1040-C and supporting Procedure Qualification Records (PQR). Prior to initiating the welding at this location the QC inspector observed

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the preheat temperature using a Raytek non-contact Thermometer was sufficient and compliant to the above-mentioned WPS. Using a Tempil Stick (temperature indicating crayon) the preheat and interpass temperature was then verified by this QA inspector to be greater than 150F and the parameters using a Fluke brand Tong style meter was verified to be 174 amps. See digital photo included in the body of this report for general information.

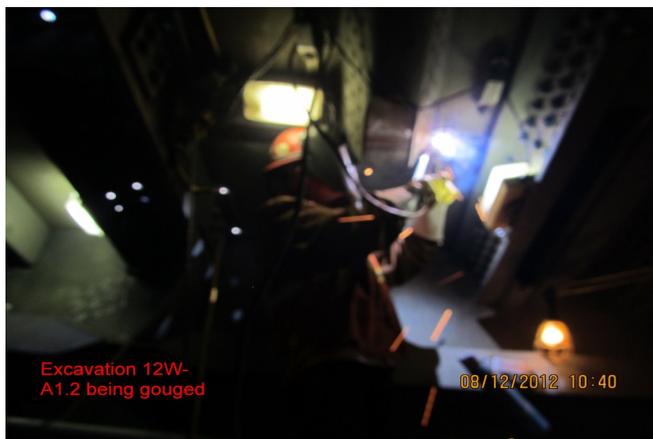
Weld Repairs 12W-A1.2

The QA inspector periodically observed the start and in process Shield Metal Arc Welding being performed by ABF welding personnel Roby Smith on the following repairs to Deck Splice 12W-A1.2:

Y= 470mm-580mm, L=150mm, W=40mm, D=11mm

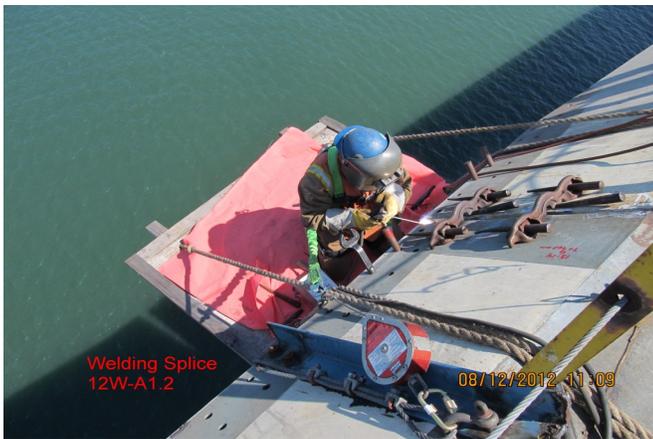
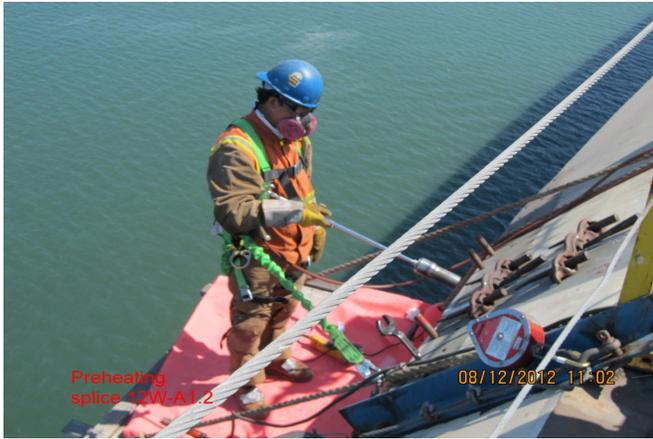
Y=1000mm-1023mm, L=23mm, W=20mm, D=7mm

The welder spent the shift depositing the root passes and fill passes with approximately 60% being completed at the end of the shift. QC inspector Chris Concha was noted to be present in order to monitor the progress and ensure the welding was within the established Welding Procedure Specification (WPS) noted as ABF-WPS-D15-1110-A and supporting Procedure Qualification Records (PQR). Prior to initiating the welding at this location the QC inspector observed the preheat temperature using a Raytek non-contact Thermometer was sufficient and compliant to the above-mentioned WPS. Using a Tempil Stick (temperature indicating crayon) the preheat and interpass temperature was then verified by this QA inspector to be greater than 250F and the parameters using a Fluke brand Tong style meter was verified to be 170 amps. The work progressed throughout the shift and appeared to be in general conformance with the contract documents. See digital photo included in the body of this report for general information.



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Summary of Conversations:

There were general conversations with Quality Control Inspector Chris Concha, at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift. All observations were relayed to Bill Levell.

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 Nina Choy 510 385 5910, who represents the Office of Structural Materials for your project.

Inspected By: Daggett, Matt

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer