

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-028237**Date Inspected:** 18-Aug-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:** jobsite

CWI Name: Fred Michaels
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

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

Quality Assurance inspector (QA) Matthew Daggett was at the American Bridge/Fluor (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:

Welding 12E-PP116.5-E5 Deck Access Hole Face B

Weld Repairs 2W-13.5-5W Longitudinal Stiffener (LS-1) .

Welding 12E-PP116.5-E5 Deck Access Hole Face B

The QA inspector randomly observed the in process Shield Metal Arc Welding being performed by ABF welding personnel Jin Pei Wang (7299) on Face B of Deck Access Hole 12E-116.5-E5. The welder spent the shift depositing the cap passes with approximately 95% 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-D15-1110-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 150F and the parameters, using a Fluke brand Tong style meter, was verified to be 158 amps. See digital photo included in the body of this report for general information.

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Repairs 2W-13.5-5W Deck Access Hole Longitudinal Stiffener

The QA inspector at random observed first time repairs (no RWR required) being performed by ABF welding personnel Roby Smith on Deck Access Hole 2W-PP13.5-5W Longitudinal Stiffener LS-1 at the following locations:

Y=100mm, D=10mm, W=20mm, L=70mm

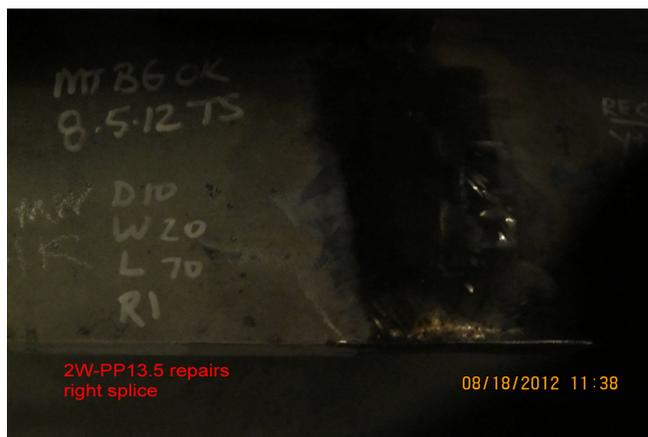
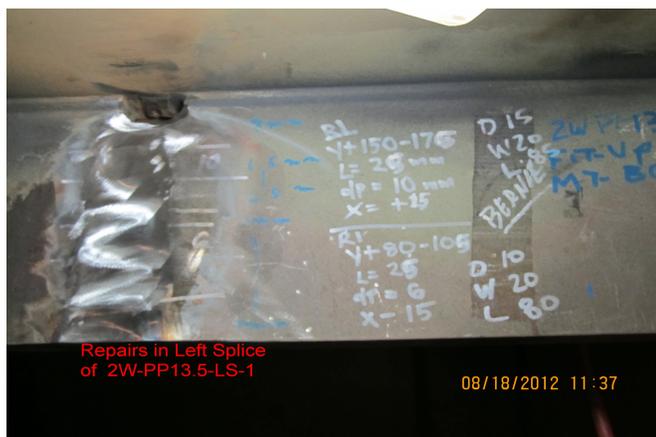
Y=150mm, D=10mm, W=15mm, L=25mm

Y=80mm, D=6mm, W=15mm, L=25mm

This QA Inspector observed Roby Smith using the Carbon Arc Gouging process to remove defects at the above-mentioned locations on the LS-1 Longitudinal Stiffener. The locations and depth of the defects had been marked on the steel by the Ultrasonic Technician at the conclusion of his testing. At the end of gouging operations Mr. Smith ground the excavations to a bright clean metal condition in preparation of Visual and Magnetic Particle Testing.

Prior to welding Quality Control Technician William Sherwood performed Visual and Magnetic Particle Testing on the above excavations. This Quality Assurance Inspector verified the results of the test by doing duplicate testing to the excavations. No indications were noted.

The welder spent the remainder of the shift depositing the root passes and fill passes with approximately 100% being completed at the end of the shift. QC inspector William Sherwood 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 150F and the parameters, using a Fluke brand Tong style meter, was verified to be 151 amps. 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 Fred Michaels, at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift. All observations were relayed to Danny Reyes and 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
