

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-028399
Date Inspected: 17-Sep-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: 1930
Location: jobsite

CWI Name:	Scott Kortum	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:	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:

This QAI observed the fitting of gusset plate BR-1 to column and floor beam 13W-PP124.5-W2.1 by ABF Welder Richard Chouinard. Prior to fitting of the gusset plate the welder removed the prime paint in the areas weld would be deposited by grinding. At the conclusion of grinding the gusset plate was fit square to the column and bottom flange of the floor beam and tacked into place using the Shield Metal Arc welding with E7018 H4R electrode.

The welder spent all of the shift depositing the root passes and fill passes with approximately 100% being completed at the end of the shift. QC inspector Kortum 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-D15-1008 Rev 0 and supporting Procedure Qualification Records (PQR). Prior to and during 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 pre-heat was then verified by this QA inspector to be greater than 150F. Using a Fluke brand Tong style meter, the parameters were verified to be 132 amps.

This QA inspector observed weld repair being performed by ABF welding personnel Jimmy Zen on Floor Beam

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Splice 13W-PP125.5-W2.8-BF-2 (Face A), at the following location(s):

Y: 1730mm, L: 150mm, W: 30mm, D: 12mm

This QA Inspector observed Mr. Zen preheating to a QC recorded, QA verified temperature of 250F prior to using the Carbon Arc Gouging process to remove defects at the above-mentioned locations on the Splice. 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. Zen ground the excavations to a bright clean metal condition in preparation of Visual, Magnetic Particle Testing, and welding.

Prior to welding Quality Control Technician Scott Kortum 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 a fraction of the shift depositing the root passes and fill passes with approximately 100% being completed at the end of the shift. QC inspector Scott Kortum 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-D15-1004R (Rev 0) and supporting Procedure Qualification Records (PQR). Prior to initiating the welding at this location the QC inspector observed the preheat temperature and post heat 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 post heat temperature was then verified by this QA inspector to be greater than 350F and 450F respectively. Using a Fluke brand Tong style meter, the parameters were verified to be 133 amps



Summary of Conversations:

There were general conversations with Quality Control Inspector Scott Kortum, 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.

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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:	Daggett, Matt	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
