

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-028166
Date Inspected: 10-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: 1930
Location: Job site

CWI Name:	Salvador Merino	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 (QAI) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island 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:

The QAI observed ABF/JV QC inspector Salvador Merino performing magnetic particle testing (MT) of the back gouged root for weld 13E-PP121-E2.0-BW1 and 13E-PP121-E2.0-BW2. Linear indications were visible at the leading edge of the vertical section of the weld. The linear indications were ground out to a depth of 17mm. ABF/JV qualified welder Xiao Hua Luo #1291 then proceeded to perform Shielded Metal Arc Welding (SMAW) in the 2G/3G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1040-A. The weld surface and surrounding area was brought to temperature by the use of a gas torch and was confirmed QC inspector Salvador Merino prior to welding.

Ultrasonic Testing (OBG Deck)

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) Longitudinal Diaphragm vertical stiffener web/flange connection for lift 13W. The welds have been previously tested and accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QAI's findings are as follows;

Longitudinal Diaphragm vertical stiffener web (Weld No. 13W-PP122.75-WT-W)

The QAI performed approximately 100% verification was performed of this weld. A total of one (1) rejectable indication was observed at the time of inspection.

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Longitudinal Diaphragm vertical stiffener flange (Weld No. 13W-PP122.75-WT-F)

The QAI performed approximately 100% verification was performed of this weld. A total of one (1) rejectable indication was observed at the time of inspection.

Detailed information for the indication can be found on the TL-6027 submitted on this date.

During the Quality Assurance (QA) random in-process visual inspection of the welding operations in lift 13E, this QA observed ABF personnel welding the web splice at panel point 121.5 with planar misalignment measuring up to 9.5mm. The web thickness at this connection is 14mm and the weld is designated as 13E-PP121.5-E2.0. The QA task leader was notified in writing of the non-compliant issue for further discussion with the Caltrans Structural Materials Representative (SMR) and ABF Management.

The QAI observed ABF/JV qualified welder Wai Kitlai #2953 performing Carbon Arc Gouging (CAG) for the repair of the deck panel drop-in splice designated as 13E-PP122.2. The ABF/JV QC inspector Salvador Merino was noted performing magnetic particle testing (MT) in way of the repair excavations at the following locations; Y=4830 Depth 13mm, Width 30mm, Length 85mm.
Y=4510 Depth 11mm, Width 30mm, Length 150mm.

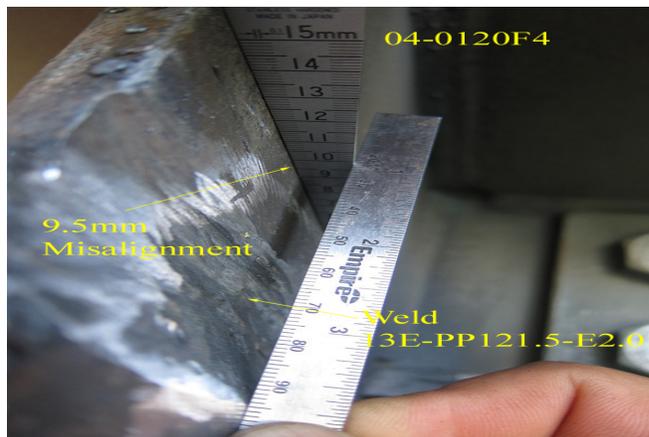
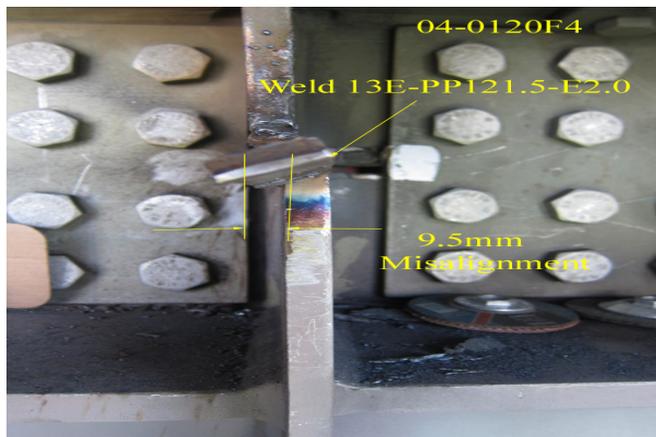
The ABF qualified welder was observed later in the shift performing repairs in the 4G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1.5-1004-Repair. The second time repair at these locations was performed without the prior approval of the engineer as the weld is designated as Fracture Critical on the contract drawings. The QA task leader was notified in writing of the non-compliant issue for further discussion with the Caltrans Structural Materials Representative (SMR) and ABF Management.

The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13W/14W and 13E-14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.



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

Inspected By:	Patterson,Rodney	Quality Assurance Inspector
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Reviewed By:	Levell,Bill	QA Reviewer
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