

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-028059**Date Inspected:** 25-Jul-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**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:

Ultrasonic Testing (OBG Deck)

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) deck drop-in splice welds for lift 13E/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;

Lift 13W Longitudinal Deck Drop-in Splice (Weld No. 13W W2.3 Y=2800~4400)

The QAI performed approximately 25% random verification from Y=4000~4400. A total of two (2) rejectable indications were observed at Y=4235 and Y=4295. The indications were confirmed by ABF QC inspector Patrick Swain during this shift.

Lift 13W Longitudinal Deck Drop-in Splice (Weld No. 13W W120.6 Y=0~1000)

The QAI performed approximately 20% random verification from Y=500~700. No rejectable indications were observed at the time of inspection.

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

This QA inspector observed at random intervals ABF/JV qualified welder Chow Tran #3139 performing Shielded

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Metal Arc Welding (SMAW) in the 4G position implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D1.5-1040-C-CU. The weld is a Complete Joint Penetration (CJP) butt weld, joining the corner assembly side plate to the OBG side plate. The weld surface and surrounding area was brought to temperature the use of induction heaters and the preheat temperature was confirmed by ABF Quality Control (QC) prior to welding. The Quality Control (QC) inspector Salvador Merino was observed monitoring the welding parameters at the beginning of the shift.

Magnetic Particle Testing (OBG Lift 13W)

This QA Inspector performed Magnetic Particle Testing (MT) of 100% of the HPS-transverse deck stiffener weld splice designated as 13W-PP120.5-TS1. This weld was previously accepted by QC Magnetic Particle technicians. This QA observed no rejectable indications at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

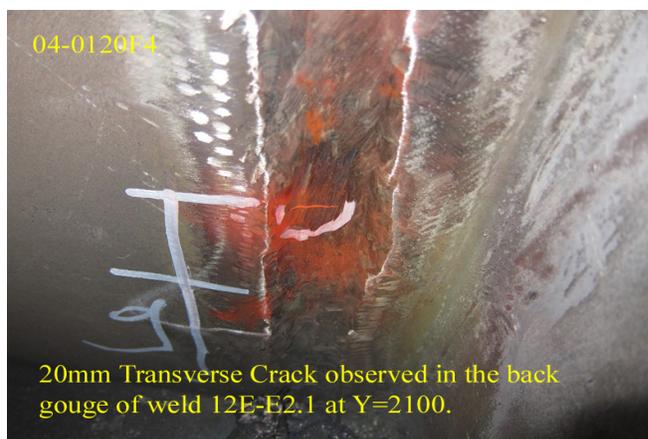
Magnetic Particle Testing (OBG Lift 12E)

During the QA verification Magnetic Particle Testing (MT) of the back gouged weld designated as 12E-E2.1, a total of one (1) transverse crack was observed at Y=2100 that measured to be a total of 20mm in length. The transverse crack was located at an area marked by QA as a termination of non-continuous backing on a previous shift. Subsequent exploratory Ultrasonic Testing of the weld was performed by QA, utilizing scanning pattern D on the weld face in way of the previously marked backing terminations appeared to show similar weld defects at approximately 2.4 meter intervals (typical length of backing used).

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

Summary of Conversations:

No relevant 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 Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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