

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-028411**Date Inspected:** 11-Sep-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site**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 (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

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) Deck drop-in longitudinal splice for lift 13W. The weld was 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 Deck drop-in splice (Weld No. 13W-W2.8)

The QAI performed a minimum of 30% verification of this weld. A total of three rejectable indications were observed ultrasonically at the time of inspection. The rejectable indication was confirmed by ABF QC inspector John Hayes during the shift. During the QA final visual inspection of this weld from face A, the QAI observed what appeared to be underfill from Y=8500~Y9500. Subsequent grinding and magnetic particle testing at this location by the QAI, revealed what appeared to be lack of fusion at the southern toe of the weld. The weld toe was excavated by grinding to a depth of 2.5mm and re-inspected by magnetic particle testing until no visible indications were present.

The QAI noted and periodically observed ABF welder Eric Sparks #3040 performing Shielded Metal Arc Welding (SMAW) in the 1G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1. 5-1004-Repair. The repairs are located on the deck-drop-in longitudinal splice designated as 13W-W2.8. The weld

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and surrounding area was brought to a temperature of 325°F by the use of gas torch. Due to the depth of excavation at this location being less than 15% of the weld size, post weld heat treatment was not required by the applicable WPS.

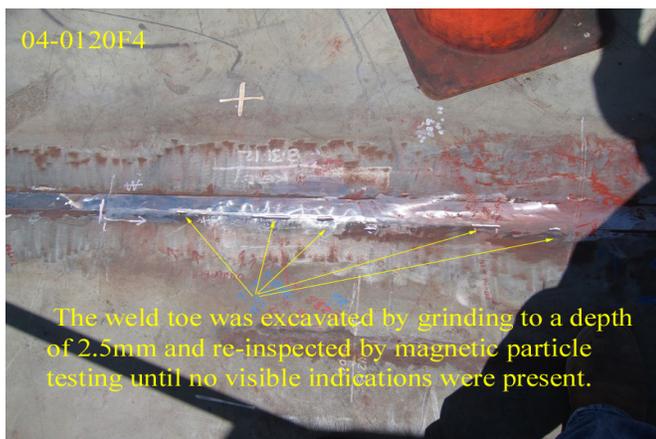
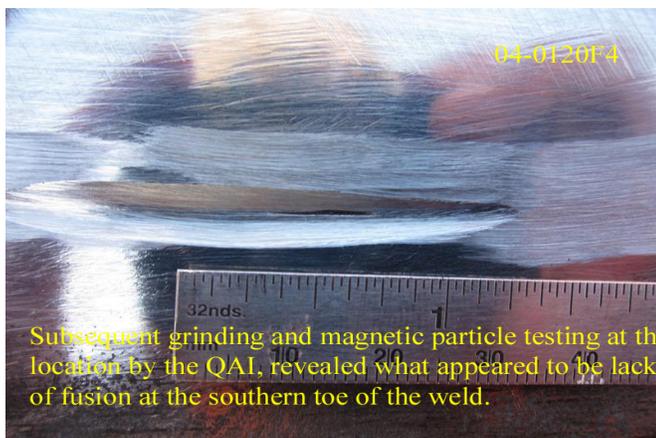
This QA randomly observed ABF/JV QC inspector John Hayes performing Magnetic Particle Testing (MT) of the deck access hole at E5 for lift 13E. The weld is designated as DAH-13E-PP124.5-E5. The locations tested were in way of production welds performed and completed 24 hours prior.

The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 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:

As noted above



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

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your project.

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