

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-028746**Date Inspected:** 12-Nov-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site

CWI Name:	N/A	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:

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) Deck access hole stiffener connections for lifts 12E and 13E. The welds were 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;

12E Deck Access Hole Stiffener Splice (Weld No. DAH-12E-PP116.5-E5-LS-E)

The QAI performed a total of 100% verification of this weld. No rejectable indications were observed at the time of inspection.

13E Deck Access Hole Stiffener Splice (Weld No. DAH-13E-PP124.5-E5-LS-E)

The QAI performed a verification of this weld in way of repairs rejected by the QAI on 10-20-2012. No rejectable indications were observed at the time of inspection.

Magnetic Particle Testing (OBG 12E)

This QA Inspector performed verification Magnetic Particle Testing (MT) of the lift 12E and 13E deck access hole stiffener connections. This QA Inspector generated a TL-6028 MT report on this date. The results of the inspection are as follows;

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12E Deck Access Hole Stiffener Splice (Weld No. DAH-12E-PP116.5-E5-LS-E)

The QAI performed a total of 100% verification of this weld. No rejectable indications were observed at the time of inspection.

13E Deck Access Hole Stiffener Splice (Weld No. DAH-13E-PP124.5-E5-LS-E)

The QAI performed a total of 100% verification of this weld. No rejectable indications were observed at the time of inspection.

13E Deck Access Hole Transverse Stiffener Fillet Connections (Weld No. DAH-13E-PP124.5-E5-TS)

The QAI performed a minimum of 15% verification of these welds. No rejectable indications were observed at the time of inspection.

Tower Electro Slag Weld "V"

The QAI was assigned by the QA task leader along with QA ASNT Level III Robert Mertz, to perform exploratory ultrasonic testing utilizing the pitch catch method on suspected planar indications on the tower electroslag butt weld designated as ESW "V" from face B.

A total of three (3) known linear and suspected planar indications were tested by the use of 45 Degree and 70 Degree probes to determine the difference in AWS db rating between traditional single transducer ultrasonic testing, and pitch catch ultrasonic testing.

It was observed that the ultrasonic response was between 10db~14db higher while utilizing pitch catch with the 70 degree probe and between 8db~10db higher utilizing pitch catch with the 45 degree probe. Due to the apparent vertical geometry of the indications in the electroslag welds it was found that the 70 Degree probes received the highest ultrasonic response in both traditional single transducer ultrasonic testing, and pitch catch method. It was also noted by both the QAI and QA ASNT Level III Robert Mertz that two inspectors manipulating both probes produced the best results while utilizing the pitch catch method.

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

Summary of Conversations:

Conversations relevant to the work being performed.

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:	Patterson,Rodney	Quality Assurance Inspector
Reviewed By:	Reyes,Danny	QA Reviewer
