

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-028634**Date Inspected:** 23-Oct-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below.**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:** Tower**Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford 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 of ESW

ESW P, Face B:

This QA performed Ultrasonic Testing (UT) of Tower Electroslag Complete Joint Penetration (CJP) shear plate welds designated as "ESW P" on face B.

This weld was previously tested by QC Ultrasonic technicians in accordance with supplemental procedure SE-UT-D1.5-CT-108-ESW-R5.

Testing was performed to verify previous findings of transverse indications. This QA verified location, depth, and indication ratings for assigned indications at each joint.

The following indications were observed. Due to joint configuration and weld cap shape, indications observed as having a transverse orientation could not be evaluated for length or "X" location.

Y locations are recorded as:

Indication #1: Y= 5575mm

Sizing – A=70db, B= 51db, C= 6db, D= 13db

X= 5mm, L= 65mm

Sound Path= 104.4mm, Depth= 36.41mm

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Indication #2: Y= 5575mm

Sizing – A=76db, B= 51db, C= 6db, D= 19db

Sound Path= 100.5mm, Depth= 35.03mm

Indication #3: Y= 5705mm

Sizing – A=67db, B= 51db, C= 5db, D= 11db

X= 2mm, L= 35mm

Sound Path= 84.26mm, Depth= 29.37mm

Indication #4: Y= 5370mm

Sizing – A=76db, B= 51db, C= 14db, D= 11db

Sound Path= 197.1mm, Depth= 68.70mm

Indication #5: Y= 5310mm

Sizing – A=76db, B= 51db, C= 6db, D= 19db

Sound Path= 100.5mm, Depth= 35.03mm

Indication #6: Y= 5290mm

Sizing – A=67db, B= 51db, C= 6db, D= 10db

X= 7mm, L= 30mm

Sound Path= 100.3mm, Depth= 364.98mm

ESW Q, Face B:

This QA performed Ultrasonic Testing (UT) of Tower Electroslag Complete Joint Penetration (CJP) shear plate welds designated as “ESW Q” on face B.

This weld was previously tested by QC Ultrasonic technicians in accordance with supplemental procedure SE-UT-D1.5-CT-108-ESW-R5.

Testing was performed to verify previous findings of transverse indications. This QA verified location, depth, and indication ratings for assigned indications at each joint.

The following indications were observed. Due to joint configuration and weld cap shape, indications observed as having a transverse orientation could not be evaluated for length or “X” location.

Y locations are recorded as:

Indication #1: Y= 5855mm

Sizing – A=68db, B= 51db, C= 4db, D= 13db

X= 15mm, L= 30mm

Sound Path= 76.42mm, Depth= 26.64mm

Indication #2: Y= 5710mm

Sizing – A=64db, B= 51db, C= 7db, D= 3db

X= 12mm, L= 70mm

Sound Path= 113.9mm, Depth= 39.72mm

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Indication #3: Y= 5510mm
Sizing – A=70db, B= 51db, C= 6db, D= 13db
X= 3mm, L= 65mm
Sound Path= 94.93mm, Depth= 33.09mm

Indication #4: Y= 5285mm
Sizing – A=70db, B= 51db, C= 5db, D= 14db
X= -5mm, L= 45mm
Sound Path= 84.10mm, Depth= 29.31mm

This QA performed UT of welds designated as ESW P and ESW Q in accordance with the approved supplemental procedure. This testing was performed in tandem with QC technician Andrew Keech. Tandem report for work performed on this date will be completed by QC technician and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. Due to QA/QC disagreement on indication interpretation, tandem report may not reflect all indications discovered by QA at time of testing.

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

Summary of Conversations:

Conversation was relevant to testing performed during this shift.

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:	Clifford,William	Quality Assurance Inspector
Reviewed By:	Reyes,Danny	QA Reviewer
