

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-029870
Date Inspected: 25-Jul-2013

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:	Jesus Cayabyab, Bernie Docena	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:	SAS Tower	

Summary of Items Observed:

Caltrans Quality Assurance Inspector (QA) Joe Adame arrived at the American Bridge/Fluor (ABF) job site between the times noted above in order to monitor ABF Quality Control functions and the in work being performed by ABF personnel. The following items were observed:

In Process Visual Inspection

RWR201307-004

ESW E-045, Location "F"-Face B

The QA Inspector observed, at random intervals, ABF/JV welder Kit Lai (WID-2953) performing investigative excavation of Electroslag Weld (ESW) "F" face B, to verify indications observed during Ultrasonic Testing with pulse/echo & pitch/catch. QC Inspector Jesse Cayayab stated that Mr. Lai will excavate every 5mm deep and allow QC/QA to inspect the excavation. After grinding to bright metal the QC Inspector performed MT testing of the excavation to inspect for the indications at each hold point. The QA Inspector also performed MT inspection throughout the process and the final excavation. Details of the repair excavation are as follows:

Indication originally reported at Y= 740mm, Excavated Y= 650mm~840mm

WeId excavated at 10mm, 15mm, 20mm, 25mm, 30mm, 35mm and 40mm-No indication observed.

Excavation -L= 190mm, W= 55mm, D= 40mm

The QC Inspector stated the excavation appears to be free of discontinuities and he would complete ABF daily inspection report and magnetic particle testing report to detail the findings. See TL-6028 for additional details on items inspected.

NDT Inspection of Electroslag Welds (ESW)

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RWR-201307-004

ESW E-045, Location "F"- Face A, B:

QA performed Ultrasonic Testing (UT) on approximately 980mm of Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as ESW "F" face A,B. Location –Excavation Y=8490mm~8870mm and additional HAZ areas from- 8870mm~9170mm, 8190mm~8490mm of this weld was inspected using this testing method.

QA/QC observed one rejectable indication in the repair area @ 8790.

QA/QC observed one recordable indication in the ESW area @ 8960.

The QA Inspector informed SMR Aaron Prchlik about the UT reject in the investigative repair. QA & the SMR discussed and evaluated the situation and observed that the original rejectable indication does not appear to have been successfully removed. QA performed UT of the above mentioned ESW location in accordance with the ABF approved supplemental procedure for confirmation and evaluation of planar type defects. Tandem report for work performed on this date will be completed by QC Inspector Jesse Cayabyab and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. Please see TL-6027 for items inspected on this date.

In Process Visual Inspection

RWR201306-002

ESW E-043 Location "Q"-Face A

The QA Inspector observed, at random intervals, ABF/JV welder Don Plumb (WID-0891) performing weld repairs of the repair excavation on Electroslag Weld (ESW) "Q", at face A locations noted as:

Y= 6560mm~6700mm

L= 300mm

W= 75mm

D= 62mm

The welder was observed preheating the weld to over 300° Fahrenheit prior to welding using the Miller ProHeat 35 with heat induction blankets. The welder was using 4.0mm diameter electrode (E7018-MH4-R) per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair Rev.3 for Shield Metal Arc Welding (SMAW). The welding parameters were verified by QC Inspector Bernie Docena throughout the day and appeared to be in compliance with the WPS noted above.

In Process Visual Inspection

RWR201305-009

ESW W-043 Location "V"-Face B

QA observed at random intervals, ABF/JV welder Mike Jimenez (WID-4671) performing carbon arc air gouging of ESW welds for defect removal on ESW weld designated as "V". Location of excavation was noted as:

ESW W -043, Location "V" Face B

Excavation Y= 6200mm~7000mm

L= 800mm

W= 80mm

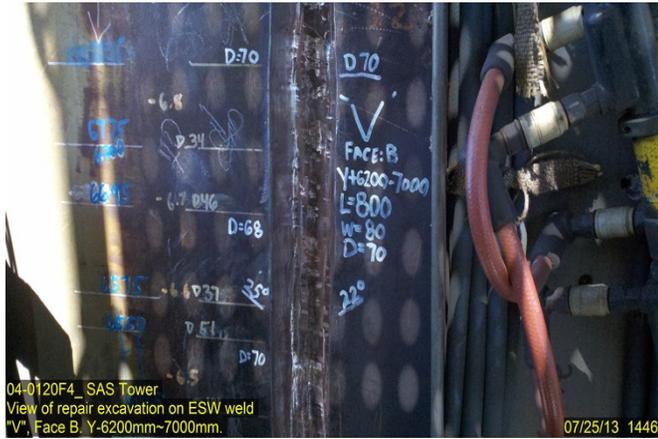
D= 70mm

After excavation and grinding to bright metal ABF Quality Control (QC) Inspector Bernie Docena was observed performing MT testing of the excavation to ensure all discontinuities were removed prior to welding. The QA Inspector also performed MT inspection of the excavation and did not observe any weld defects. See TL-6028 for

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information on items inspected on this date.



Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to work and 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:	Adame,Joe	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer
