

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-030110
Date Inspected: 03-Oct-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:	Bernie Docena, Jesse Cayabyab	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) JV job site between the times noted above in order to monitor ABF Quality Control activities and the in process work being performed by ABF production personnel. The following items were observed:

Ultrasonic Testing of Electroslag Welds (ESW) Repair

RWR-201308-009

ESW W-042, Location "M"- Face A, B:

The QA Inspector observed ABF QC Inspector Jesse Cayabyab performed Ultrasonic Testing (UT) on Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as ESW "M" at face A, B. The inspection was being performed on SMAW repairs. The "Y" Locations were noted as: Y=4400mm, 5670mm, 5700mm, 5720mm & additional HAZ areas located 300mm above and below the prosed repair. Mr. Cayabyab also performed UT inspection for verification of planar indications using both the "pulse echo" (PE) technique and the "pitch and catch" (PC) technique to verify recordable indications above and below the repair. Two recordable indications were noted in the ESW adjacent to the repair. The inspection was performed at the locations listed below.

Location "M" (Face A, B) 60mm Thick, 70°-

SMAW Repair Y: 4400mm, 5670mm, 5700mm & 5720mm, X: N/A, Face A, B

-PEUT: No rejectable indications observed.

300mm below repair (ESW) - Y: 3960mm, X: -3mm, Face A

-PEUT: Ind. Lvl (A): 76, Ref. Lvl (B): 52, Att. Factor(C): 7,

Ind. Rating (D): 17, SD (E): 108

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-PCUT: Ind. Lvl (A): 90, Ref. Lvl (B): 52, Att. Factor(C): 12, Ind. Rating (D): 26, SPa (E): 120

300mm below repair (ESW)-Y: 4130mm, X: -15mm, Face A

-PEUT: Ind. Lvl (A): 75, Ref. Lvl (B): 52, Att. Factor(C): 7, Ind. Rating (D): 16, SD (E): 105

-PCUT: Ind. Lvl (A): 82, Ref. Lvl (B): 52, Att. Factor(C): 12, Ind. Rating (D): 18, SPa (E): 118

The UT inspection was performed in accordance with the per ABF supplemental procedure 1, 2 & 3 Ultrasonic Testing of ESW groove welds. The tandem report for work performed on this date will be completed by Mr. Cayabyab and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. See TL-6027 for additional details relevant to SMAW repairs only inspected on this date.

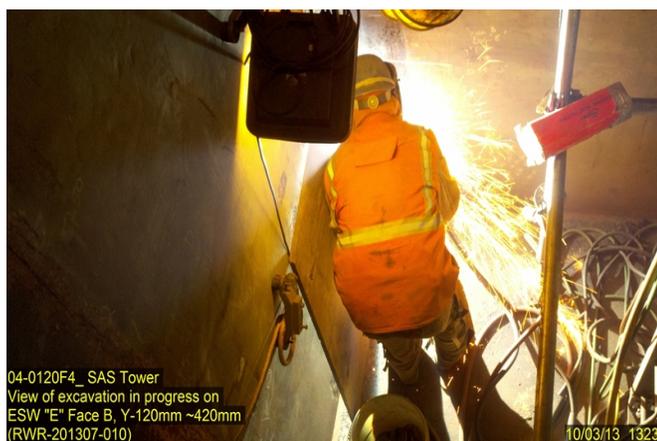
ESW Repair Excavation

RWR-201307-010

ABF RFI-003388R00

ESW N-045, Location "E"-Face B:

The QA Inspector observed that ABF welders Rick Clayborn (WID-2773) and Kit Lai (WID-2953) have commenced excavation of Electroslag Weld (ESW) "E" at Face B. The weld is being excavated full length of Face B due to multiple indications remaining from previous unsuccessful weld repair attempts. The work is described in Request for Weld Repair (RWR) 201308-009 and has been approved in ABF Request for Information (RFI) 003388R00. The excavation locations were preheated to 350° Fahrenheit prior to the work being performed with the Miller Proheat 35 induction system with dual heating blankets at Face a & Face C. per RWR-201307-010, the specified preheat of 107°C. / 350°F. would be applied at the start of excavation and held continuously for the entire length of the excavation until welding is complete. Mr. Clayborn and Mr. Lai were performing the excavation using an air carbon arc gouging and grinders at "Y" locations 120mm ~420mm & 9550mm~9850mm. Depth of the excavations observed was approximately 10mm by 40mm wide. On this date initial excavation work continued until the end of the shift. The QA Inspector was informed by ABF QC Inspector Bernie Docena that proheat will maintain the preheat continuously throughout the night until work excavation work continues on 10-04-13.



Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

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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:	Riley,Ken	QA Reviewer
