

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-030038**Date Inspected:** 11-Sep-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**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:

ESW Repair Welding

RWR-201308-004

ESW S-043, Location "T"- Face B:

The QA Inspector observed ABF welder Mike Jimenez (WID-4671) performing Shield Metal Arc Welding (SMAW) on the repair excavation on Electroslag Weld (ESW) "T" at Face B. The locations and repair information are listed in Request for Weld Repair (RWR) 201308-004 from Ultrasonic Testing indications designated for repair. The repair locations were noted as:

Y=1980mm~2230mm

L=250mm

W= 70mm

D= 60mm

Prior to welding, the welder was observed preheating the weld to over 350° Fahrenheit using the Miller ProHeat 35 with heat induction blankets and a propylene torch. The welder was using 4.0mm diameter electrode (E7018-1 HR4) per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair Rev.3 with the Shielded Metal Arc Welding process (SMAW). The welding parameters were verified by ABF QC Inspector Bernie Docena with a Fluke 337 current Clampmeter and preheat was verified with temperature indicators. The QC Inspector performed welding parameters verifications at random intervals throughout the shift. The weld repair at

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

this Y location was completed on this date. ABF will grind down weld reinforcement and clean adjacent areas in preparation for final inspection. The welding observed appeared to be in compliance with the WPS noted above.

ESW Repair excavation

RWR-201308-008

ESW S-042, Location "L"-Face A:

The QA Inspector observed ABF welder Wai Kit Lai (WID-2953) performing excavation of ESW "L" Face A @ Y-6430mm to verify indications observed during Ultrasonic Testing pulse/echo & pitch/catch. The repair information and rejectable indication is described in Request for Weld Repair (RWR) 201308-008. Mr. Lai was performing the excavation using an air carbon arc gouging and a grinder. The repair is being performed on Face A, since a significant planar indication was verified and removed on Face B at this Y location. Mr. Lai was instructed by ABF QC Inspector Bernie Docena to notify him if indications are visible to allow QC/QA time to inspect the excavation. Location of the repair is as follows:

Weld excavated at 26mm dp- No indications observed.

Excavation Length (Y=6300mm~6580mm) L-280mm

W= 60mm

D= 26mm.

After grinding to bright metal the QC Inspector performed MT testing of the excavation. 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 on this date. Mr. Lai was later observed performing Shield Metal Arc Welding (SMAW) on the repair excavation mentioned above. The preheat was being held to over 350° Fahrenheit using the Miller ProHeat 35 with heat induction blankets. The welder was using 4.0mm diameter electrode (E7018-1 HR4) per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair Rev.3. ABF QC Inspector Bernie Docena performed welding parameters verifications at random intervals throughout the shift. The welding observed appeared to be in compliance with the WPS noted above.



Summary of Conversations:

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

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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
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Reviewed By:	Riley,Ken	QA Reviewer
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