

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-030084**Date Inspected:** 30-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, 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:

ESW Repair Excavation

RWR-201308-009

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

The QA Inspector observed ABF welder Mike Jimenez (WID-4671) performing Shield Metal Arc Welding (SMAW) on the repair excavation of Electroslag Weld Electroslag Weld (ESW) "M" Face A @ Original Y's-5670mm, 5700mm & 5720mm. Location of this repair is as follows:

Excavation length (Y-5500mm~5850mm) L-350mm, W-60mm, D-46mm

Prior to welding, Mr. Jimenez was observed preheating the weld to over 300° 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. The welding process in use was the SMAW process. ABF QC Inspector Bernie Docena performed welding parameters verifications and checked preheat at random intervals throughout the shift. The QA Inspector also verified the preheat with a 300° F. temperature indicator. The QA Inspector and the QC Inspector also discussed the importance of avoiding arc strikes with the welder. Mr. Jimenez stated that he unintentionally had caused a few arc strikes due to the restricted location of the repair. The QC Inspector also stated that upon completion of all welding at this repair location the arc strikes will be ground out and magnetic particle testing (MT) will be performed in the area of concern.

Welding was approximately 50% complete at this location on this date.

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ESW Test Plate

ESW W-043, Location "V"-Face B:

The QA Inspector was informed by ABF Field Engineer Eric Blue that ABF would start to layout the "Y" dimensions coordinates on Face B of ESW "V" for extraction of section of the weld to be tested for evaluation of transverse indications. The "Y" locations are 3550mm to 3790mm. ABF QC will be mark test plate locations on the exterior of weld "V" at Face B once all coating is removed. Mr. Blue also stated that ABF will have Radiography Testing performed on the weld location of the Tower before the plate is cut out. ABF Welding Foreman Rick Clayborn informed Mr. Blue that he was instructed by ABF Welding Superintendent Scott Smith to drill pilot holes on the test plate location of weld "V" to assist with flame cutting removal of the test plate that will commence on this date. Mr. Blue informed Mr. Clayborn that this was a direct contradiction to what was discussed in the ABF production meeting on this date in regards to the test plate. Mr. Blue concluded by informing the group that the RT testing must be performed before anything is cut or drilled on the surface of the test plate location. By the end of the shift no work was performed on the test plate location at weld "V".



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:	Riley,Ken	QA Reviewer
