

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025249**Date Inspected:** 20-Jul-2011**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:** Steve McConnell**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:** OBG Sections**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Tower Shear Plates – Electro Slag Welding (ESW) – weld number N-041:

This QA Inspector was informed by QA Inspector Jojo Lizardo the ESW as this location had started at 0800 hours this date. This QA Inspector was also informed that at approximately 0825 hours the alarm for cooling water sounded indicating a problem with the water chilled during the welding operation. This QA Inspector arrived at weld joint number N-041 at approximately 0840 while ABF personnel were switching from the primary water chiller to the auxiliary water chiller. This QA Inspector was informed by ABF personnel on the 13 meter deck the water temperature was beginning to lower and that it appeared to have solved the issue. This QA Inspector observed that ABF welding personnel Danny Ieraci (#3232) was the welding operator for this ESW joint and QC Inspector Steve McConnell was monitoring the welding.

This QA Inspector went to the outside, 3-meter elevation and observed the bottom ESW shoe being jumped. The color of the weld metal and base material did not indicate the temperatures were at an elevated temperature. This QA Inspector did not hear any unusual sounds. This QA Inspector observed several more transfers of the bottom ESW shoe to the upper position (jumping) and the welding operation appeared to be normal. This QA Inspector observed Caltrans Engineer Doug Wright was present and he informed this QA Inspector the water temperature

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was currently between 80°F and 100°F with a flow rate of 3 GPM and that prior to switching water chillers the temperature was between 70°F and 80°F with a flow rate of 4 GPM. Caltrans Engineer Doug Wright also informed this QA Inspector that he had called QA Inspector Robert Mertz regarding these temperatures and flow rates and was informed that they appeared to comply. This QA Inspector talked to QA Inspector Robert Mertz later this shift regarding obtaining a copy of the welding data for this weld joint to verify the differences between the two cooling lines (inlet and outlet) were within the contract requirements. This QA Inspector had a conversation with Caltrans Engineer Doug Wright regarding this and was informed that he would request a copy of the welding data from ABF for verification purposes.

This QA Inspector had performed observations outside at the 3 meter elevation, inside at the 3 meter elevation and from the 13 meter operators location by 0930 this date and no further issues appeared, welding appeared to be running as normal. This QA Inspector observed QC Inspector Steve McConnell was also monitoring the welding from these various locations.

At approximately 1030 hours this date welding had progressed to the 9 meter elevation and appeared to be running as normal. This QA Inspector observed QC Inspector Jesse Cayabyab was performing Ultrasonic Testing (UT) on weld joint number S-043. QC Inspector Jesse Cayabyab informed this QA Inspector the UT was for information only as requested by the contractor.

At approximately 1205 hours this date ESW was completed for weld joint number N-041. This QA Inspector had monitored the ESW from various locations and did not observe or hear any indications other than what was noted above that would indicate welding from the normal. See photos below of ESW in process.

Verification of the welding to Welding Procedure Specification (WPS) ABF-WPS-ESW-120T can be performed after the welding data, specifically the cooling water temperatures, is provided by ABF.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted below there were no notable conversations.



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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 Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
