

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021074**Date Inspected:** 25-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	See Items Observed		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** Orthotropic Box Girders**Summary of Items Observed:**

At the start of the shift the Quality Assurance Inspector (QAI) traveled to the project site and observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

A). Tower Grillage/East and North Shaft

A). Tower Grillage

The QAI observed the installation and the assembly fit-up of the plates identified as P1, P5 and P7 located at the East and North shaft of the tower grillage. The fit-up and the tack welding operation was performed by Rick Clayborn, ID-2773 utilizing the Shielded Metal Arc Welding (SMAW) process to perform this task. The welding was performed in the overhead (4G) position with the work placed in an approximate vertical plane and the weld metal deposited from the underneath side of the weld joint. The minimum preheat temperature of 100 degrees Celsius and the interpass temperature of 230 degrees Celsius appeared to comply with the contract documents. The electrodes were stored in electrically heated, thermostatically controlled oven after removal from the sealed containers. The exposure limits of the 3.2 mm electrodes identified as E9018-H4R and the minimum storage oven temperature of 250 degrees Celsius appeared to be in compliance with the contract documents. At the time of the observation there were two (2) issues noted by the QAI (See Summary of Conversations). The fit-up of the plates appeared to comply with the contract documents.

The digital photographs on page 2 of this report illustrate some of the work observed during this scheduled shift.

WELDING INSPECTION REPORT

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Summary of Conversations:

There were general conversations with Quality Control Inspector Mike Johnson, at the start of the shift regarding the location of American Bridge/Fluor welding and inspection personnel.

Issue No. 1- The QAI informed Mr. Johnson that the WPS's utilized to perform the welding were not approved and were in the revision process as per Robert Mertz. Mr. Mertz also informed the QAI that if production welding was to commence that the heat input would need to be between the minimum 1.75 kJ/mm and the maximum 2.50 kJ/mm.

Issue No. 2- In conversation with Mr. Mertz there was a concern of continuous preheat during the welding operation of CJP, PJP and fillet welds. At this time it appeared the contractor was not going include the continuous preheat during the welding operation. This issue was not resolved at the end of the 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 Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Reyes, Danny

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer