

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-021504**Date Inspected:** 01-Mar-2011**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:** Mike Johnson, Fred Von Hoff**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:** S.A.S. components**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project.

The QAI observed ABF personnel welding cover plates into the South shaft of the Tower Grillage at Pier 7. The QAI noted that all the materials to be welded are grade 485W. The QAI was informed that the root passes of the overhead groove (4G) complete joint penetration (CJP) welds will be put in and that a 2nd layer of welds will be put into the CJPs before any welding of the 4G partial joint penetration (PJP) welds will be made. The QAI noted that per Caltrans Engineer Mark Woods, the contractor does not need to maintain continuous preheat / 3 hours of post welding heat on these joints. The QAI noted that the Quality Control (QC) Inspector Mike Johnson and Fred Von Hoff are monitoring the welding. The QAI noted that Rick Clayborn, ID 2773, Richard Garcia, ID 5892, and Gilbert Peralta, ID 9453, are using shielded metal arc welding (SMAW) with E9018-H4R electrodes. The QAI noted that welding procedure specification (WPS) being used for the CJP welds is ABF-WPS-D15-1042A-4 and that ABF-WPS-D15-1162 is being used for the PJP welds.

The QAI made random observations / measurements of the welding parameters as the welding was being performed. The QAI noted that the welding voltage, current, preheat and interpass temperatures appeared to be within the WPS requirements. The QAI also noted that as the root welding progressed, cracked tack welds were being removed by grinding. The QAI was informed by the QC Inspectors Mike Johnson, that magnetic particle testing (MT) is being conducted on the tack weld removal areas. The QAI observed that tack welds visible along the cover plates and the PJP welds appear to be cracked. The QAI was informed that these will be removed before the PJP welds will be made. The QAI noted that the CJP and PJP welds are still in progress at the end of the shift.

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The QAI continued reviewing and consolidating the information from welding report packages to identify missing reports of inspections and general compliance to the contract requirements, including welding report submittals # 1536 revisions 40, 41, 42 and 43. The QAI continued generating a weld specific tracking list from the contractor's welding reports. The QAI continued the cumulative review of all submitted and bootleg welding reports. During this process, the QAI identified additional missing reports / information that will be relayed to the contractor.

Summary of Conversations:

The QAI had general conversations with ABF and Caltrans personnel during this shift, as noted above. The QAI relayed the status of the weld report reviews and tower grillage welding to the QAI Lead Bill Levell. The QAI also relayed the status of the welding in progress to the QAI Craig Hager. Except as described above, there were no other notable conversations.

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.

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| Inspected By: | Croff,Scott | Quality Assurance Inspector |
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| Reviewed By: | Levell,Bill | QA Reviewer |
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