

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-023459**Date Inspected:** 11-May-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:** jobsite**CWI Name:** 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:** OBG**Summary of Items Observed:**

The QAI observed CJP welding of lifting lug holes identified as 8E-PP64-E1&E3. The welding was performed by certified and approved welder Jason Collins ID-8128. He was utilizing the WPS identified as ABF-WPS-D15-1050A-CU Rev.0. The field inspection was performed by QC Fred Von Hoff. The in process production welding appeared to comply with the contract documents, WPS and specifications. The welding was performed using the Shielded Metal Arc Welding (SMAW) process as per the Welding Procedure Specification. The welding was performed in the flat (1G) position using E7018-H4R low hydrogen electrodes. The 3.2mm and 4.0mm electrodes used were stored in electrically heated, thermostatically controlled oven after removal from the sealed containers. The exposure limits of the electrodes appeared to comply with the minimum storage oven temperature of 120 degrees Celsius as per the contract documents. The WPS was also utilized by the QC inspector as a reference to monitor the welding operation, verify the welding parameters and verify the minimum preheat and the interpass temperatures. The welding parameters and surface temperatures were verified by the QC inspector's Fluke 337 clamp meter for the electrical welding parameters, and a Tempil Heat Indicator for verifying the preheat and interpass temperatures. At the time of the observation no exceptions were noted by the QAI. The following is a photograph of the work in progress.

The QAI observed CJP welding of side plate splice identified as 10E-PP95-E2. The welding was performed by certified and approved welder Song Tao ID-3794. He was utilizing the WPS identified as ABF-WPS-D15-3042-B1. The field inspection was performed by QC Fred Von Hoff. The in process production welding appeared to comply with the contract documents, WPS and specifications. The welding was performed using the Flux Core Arc Welding Gas Shielded (FCAW-G) process as per the Welding Procedure Specification. The welding was performed in the vertical (3G) position using 1.6mm diameter E71T-1M ESAB electrode. The

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

WPS was also utilized by the QC inspector as a reference to monitor the welding operation, verify the welding parameters and verify the minimum preheat and the interpass temperatures. The welding parameters and surface temperatures were verified by QC. He used a Fluke 337 clamp meter for the electrical welding parameters, and a Tempil Heat Indicator for verifying the preheat and interpass temperatures. At the time of the observation no exceptions were noted by the QAI.

The QAI observed single pass fillet welding of drip rail at location 11E PP102 line F. The welding was performed by certified and approved welder Gill Peralta ID-9453. He was utilizing the WPS identified as ABF-WPS-1050A-CU Rev.0. The field inspection was performed by QC Fred Von Hoff. The in process production welding appeared to comply with the contract documents, WPS and specifications. The welding was performed using the Shielded Metal Arc Welding (SMAW) process as per the Welding Procedure Specification. The welding was performed in the overhead (4F) position using E7018-H4R low hydrogen electrodes. The 3.2mm electrode used was stored in electrically heated, thermostatically controlled oven after removal from the sealed containers. The exposure limits of the electrodes appeared to comply with the minimum storage oven temperature of 120 degrees Celsius as per the contract documents. The WPS was also utilized by the QC inspector as a reference to monitor the welding operation, verify the welding parameters and verify the minimum preheat and the interpass temperatures. The welding parameters and surface temperatures were verified by the QC inspector's Fluke 337 clamp meter for the electrical welding parameters, and a Tempil Heat Indicator for verifying the preheat and interpass temperatures. At the time of the observation no exceptions were noted by the QAI.

Summary of Conversations:

QAI Lead Inspector Danny Reyes directed this inspector at the start of the shift to American Bridge/Fluor welding operations locations and inspection and N.D.E. testing personnel scheduled locations for this shift. There were general conversations with QC Inspector Fred Von Hoff regarding WPS use, verification, and the next welding operations location.

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: | Saulsbury, Tim | Quality Assurance Inspector |
| Reviewed By: | Levell, Bill | QA Reviewer |
