

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-027534**Date Inspected:** 03-May-2012**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:	As noted below		
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
Component:	SAS OBG		

Bridge No: 34-0006**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

6W PP46.5 W5-LSW/LSE (Interior)

This QA Inspector performed Magnetic Particle (MT) testing on the West Longitudinal Stiffener (LSW) and the East Longitudinal Stiffener (LSE) of the Deck Access Hole (DAH) located at 6W PP46.5 W5 on the interior of the OBG. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

12E PP109.5 E2-LSE (Interior)

This QA Inspector made a random observation of the LSE of the DAH located at 12E PP109.5 E2 on the interior of the OBG. It was noted that the Pro-Heat 35 unit was operating and the thermal heat blankets were in place over the joint maintaining a temperature of 200°F. QC Inspector John Pagliero performed a MT test on the back-gouge and noted three (3) indications which the welder removed by minor grinding with a small disc grinder. Mr. Pagliero re-tested the site and it was noted that no indications were observed. This QA Inspector made random observations of ABF welder Todd Jackson (ID 4639) performing the Shielded Metal Arc Welding (SMAW)

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Process in the 3G vertical position utilizing E 9018-H4R electrodes. The welder was observed utilizing the Pro-Heat 35 thermal heating blankets for face "A" of the complete penetration joint (CJP) to pre-heat and provide constant heat to the work. QC Inspector John Pagliero verified the temperature and recorded the parameters as acceptable and within the requirements of ABF-WPS-D1.5-1012-3. The welder was observed welding the height of the joint followed by grinding and blending of the work utilizing a small disc grinder. On a subsequent observation, this QA Inspector noted that the welding was performed in the vertical position utilizing the E9018-H4R low hydrogen electrodes. The 3.2mm electrodes 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 welding parameters and surface temperatures were verified by the QC inspector's utilizing a Fluke 337 clamp meter to measure the electrical welding parameters and Tempilstik Heat Indicators for verifying the preheat and inter-pass temperatures. At the time of the observation no issues were noted by the QA. On subsequent observations throughout the shift to monitor quality, it was noted that the work was in progress and appeared to be in general conformance with the contract documents.

13E PP124 E2.8 (Exterior)

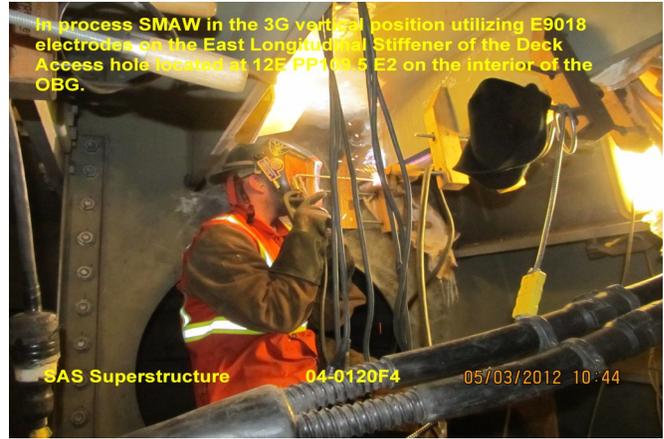
This QA Inspector made random observations of the SMAW process in the 1G flat position on line E2.8 at 13E PP124. ABF welder Salvador Sandoval (ID 2202) was observed utilizing a propylene gas torch to preheat the joint prior to welding. This QA Inspector observed QC Inspector William Sherwood using a Fluke infra-red temperature gauge to verify the preheat temperature of more than 200°F. The parameters measured during welding were 245 amps while employing E7018-H4R electrodes. The 3/16" electrodes 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 welder was observed grinding and blending the start/stop edges of the work between passes while the QC Inspector measured the inter-pass temperatures. At PP123 on the same line, ABF welder Mike Jimenez (ID 4671) was observed performing the SMAW process in the 1G flat position utilizing 3/16" E7018-H4R electrodes. Mr. Jimenez was observed cleaning the start/stop edges of the work utilizing a small disc grinder and a rotary drill with a steel bit. QC Inspector William Sherwood was present to monitor the parameters and the welding to ensure compliance with ABF-WPS-D1.5-1040C and the contract specifications. On a subsequent observation, Mr. Sandoval was observed continuing the production welding on line E2.8 and at the time of the observation no issues were noted by the QA. Mr. Jimenez was observed continuing the production welding and no issues were noted during this observation. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work appeared to be in general conformance with the contract documents.

Summary of Conversations:

There were no pertinent conversations today.

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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: Frey,Doug

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer