DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027395
Date Inspected: 02-Apr-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name:	As noted below			**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: SAS OBG

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:

13E/14E-A-LS4 (Interior)

This QA Inspector randomly observed Shielded Metal Arc Welding (SMAW) in the 4G overhead position on the “A” deck Longitudinal Stiffener #4 (LS4) supports at 13E/14E on the interior of the OBG. ABF welder Richard Garcia (ID 5892) was observed pre-heating the stiffener to 200° F prior to commencement of welding. The welding was observed utilizing E9018-H4R electrodes obtained from a baking oven verified by this QA Inspector. On a subsequent observation, the welder was observed placing eight (8) mm passes in the TC-P4 joint, (partial penetration) of the 485w to 485w High Performance Steel (HPS). QC Inspector Sal Merino was present to monitor the welding and parameters as they pertained to ABF-WPS-D1.5-1162-4 and measured the inter-pass temperatures between passes. During the time between passes, the welder was observed cleaning the work employing a small disc grinder to blend the start/stop edges for a smooth transition. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general compliance with the contract specifications.

12W PP109.5 W5-DAH (Exterior)

This QA Inspector randomly observed ABF welder Salvador Sandoval (ID 2202) perform the SMAW process

in the 1F flat position on the Deck Access Hole (DAH) located at 12W PP109.5 W5 on the exterior of the OBG. The welder was observed utilizing E7018-H4R electrodes and this QA Inspector verified that the electrodes were recently obtained from a baking oven. QC Inspector Steve Jensen was observed measuring the inter-pass temperatures by employing an infra-red temperature gun as well as monitoring the welding and the parameters. It was noted that the welder was drawing amperage of 125 utilizing 3.2mm electrodes. The welder was observed grinding the start/stop edges of the work utilizing a small disc grinder and cleaning excess debris with compressed air. The welder was observed running multiple pass stringers while adhering to ABF-WPS-D1.5-F1200A. On a subsequent observation, the welder was observed continuing work on the B-U2a Complete penetration Joint (CJP) and was employing the Carbon Air Arc technique to remove metal previously placed that Mr. Sandoval considered unacceptable. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appeared to be in general conformance with the contract specifications.

9E PP84.5 E5-A-LSW (Interior)

This QA Inspector randomly observed Quality Control (QC) Inspector John Pagliero perform a Magnetic Particle (MT) inspection of the West Longitudinal Stiffener (LSW) at 9E PP84.5 E5 on the interior of the OBG. It was noted that Mr. Pagliero found no rejectable indications. Mr. Pagliero also performed an ultrasonic inspection (UT) of the welds and found them to be acceptable. This QA Inspector performed an MT Inspection on the LSW at the same location on the interior of the OBG. This QA Inspector performed 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. This QA Inspector performed a UT inspection on approximately 10% of the welds on the LSW at 9E PP84.5 E5 on the interior of the OBG. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

10W PP98 W5-Domestic water/Compressed Air (Exterior)

This QA Inspector observed F.W. Spencer welder Damian LLanos ID# (6645) performing SMAW in all positions on schedule 80, 4” domestic water pipe and 2.5” compressed air pipe at the locations listed below. This QA Inspector verified the fit up of the joints and found it to be satisfactory and randomly observed QC Inspector Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to WPS-1-12-1 Revision 2 (1.12). The welder was observed utilizing 6010 electrodes in the root pass with the balance using 7018 electrodes and cleaning the weld after each pass utilizing a wire wheel on a small disc grinder. The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work appears to be in general conformance with the contract documents.

2.5/98/SW, 4/98/SW
2.5/99/SW, 4/99/SW
2.5/100/SW, 4/100/SW

Summary of Conversations:

WELDING INSPECTION REPORT

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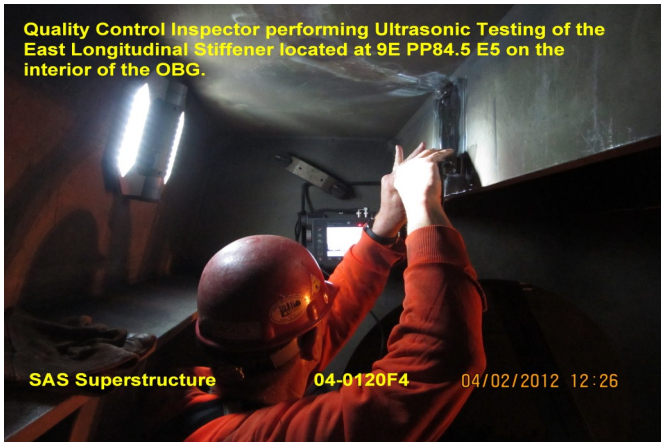
This QA inspector met with QC inspectors John Pagliero, Jesse Cayabyab and Sal Merino to coordinate inspections required and welder assignments.



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