

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

Report No: WIR-027376
Date Inspected: 28-Mar-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: 1530
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:

12E PP109.5 E5-DAH (Exterior)

This QA Inspector randomly observed ABF welder Salvador Sandoval (ID 2202) perform the Flux Core Arc Welding (FCAW) process in the 1 and 2G flat and horizontal positions on the Deck Access Hole (DAH) located at 12E PP109.5 E5 on the exterior of the OBG. The welder was observed utilizing E71T-1M Ultra-core Dual-Shield wire electrodes and this QA Inspector verified that the electrodes were recently opened from a new box. QC Inspector Steve McConnell was observed measuring the inter-pass temperatures by employing an infra-red temperature gun on the B-U3-GF complete penetration joint (CJP) as well as monitoring the welding and the parameters. It was noted that the welder was drawing amperage of 295 at 25 volts with a travel speed of 333mm per minute equaling a total heat input of 1.32 joules/mm. The welder was observed grinding the start/stop edges of the work utilizing a small disc grinder and cleaning excess debris with compressed air. 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 ABF-WPS-D1.5-3010-1.

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

This QA Inspector at random intervals, observed SMAW in the 3G vertical position on the East Longitudinal

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Stiffener (LSE) located at 9E PP84.5 E5 on the interior of the OBG. ABF welder Todd Jackson (ID 4639) was observed utilizing E9018-H4R electrodes on the B-U2a CJP joint which this QA Inspector verified the electrodes were obtained from a baking oven, and drew amperage of 120. QC Inspector Steve McConnell was present monitoring the welding and the parameters as they pertained to ABF-WPS-D1.5 1012-3. The welder was observed employing a small disc grinder to clean and blend the work prior to placing another pass. This QA Inspector noted that heat induction blankets were in use and that a ceramic backing bar was in place as work progressed on face "A" of the stiffener. On subsequent observations this QA Inspector noted that the work was in progress and appeared to be in general conformance with the contract specifications.

8W PP70.5 W2-A-LSW (Interior)

This QA Inspector made random observations of SMAW on the DAH located at 8W PP70.5 W2 on the interior of the OBG. ABF welder Eric Sparks (ID 3040) was observed welding in the 4G overhead position utilizing 3.2mm E7018-H4R electrodes that were obtained from a remote baking oven verified by this QA Inspector. QC Inspector Steve Jensen was present to monitor the welding and the parameters to ensure compliance with ABF-WPS-D1.5-1012-3. The welder was observed cleaning the work between passes and employed a small disc grinder to blend the start/stop edges for a smooth transition, as the QC Inspector measured the inter-pass temperatures. On a subsequent observation, this QA Inspector noted that Mr. Sparks had removed weld metal from the weld root side of the joint and QC Inspector John Pagliero had performed Magnetic Particle (MT) inspection on the back gouge. This QA Inspector was informed that Mr. Pagliero had found no rejectable indications. The welder was observed performing SMAW on side "B" of the joint utilizing E9018 electrodes in the same fashion as face "A". This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work at this location is in progress and appeared to be in general conformance with the contract specifications.

8W PP61.5 W2-DAH (Interior)

This QA Inspector randomly observed ABF welder Mike Jimenez (ID 4671) perform the SMAW process in the 4G overhead position on the Deck Access Hole (DAH) located at 8W PP61.5 W2 on the interior of the OBG. Prior to welding Mr. Jimenez was observed pre-heating the B-U2a CJP joint to a minimum temperature of 20°C which was verified by the QC Inspector. This QA Inspector randomly observed the welder employing 3.2mm E7018-H4R electrodes drawing amperage of 123. QC Inspector Steve Jensen was observed monitoring the welding to insure the parameters were in accordance with ABF-WPS-D15-1010-Revision 1. The welder was also observed cleaning the work utilizing a small disc grinder, brushes and compressed air to clean to shiny metal so as to not introduce additional indications. 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 accordance with the contract documents.

9E PP84.5 E5-DAH-Repair (Exterior)

This QA Inspector randomly observed ABF welder Rick Clayborn (ID 2773) performing the excavation operations on the "A" deck, DAH located at 9E PP84.5 E5. The welder was observed utilizing the Carbon Air Arc method to remove material from the joint to repair four (4) ultrasonic rejectable indications. Mr. Clayborn utilized a small disc grinder to clean the excavations in preparation for MT testing and inspection. QC Inspector Steve McConnell performed MT inspection on the excavations and noted that no rejectable indications were found. The

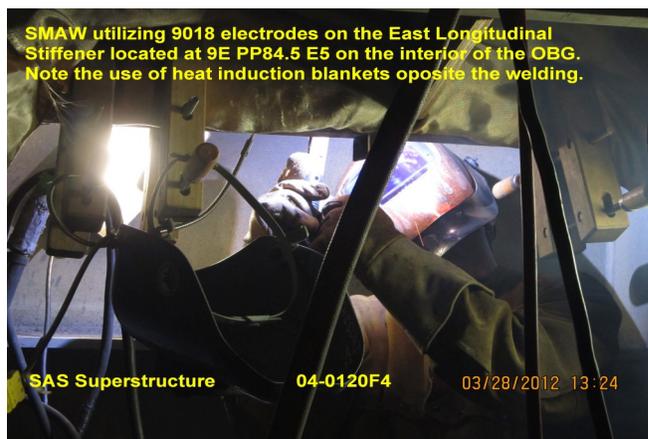
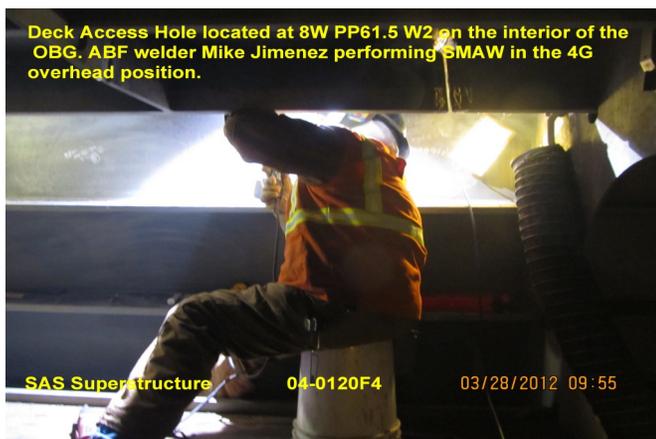
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dimensions of the excavations were recorded as; y+710mm: 85mm in length, 25mm wide and 14mm deep, y+2795mm: 165mm in length, 25mm wide and 14mm deep, y+3120mm: 130mm in length, 25mm wide and 16mm deep and y+3450mm: 80mm in length, 25mm wide and 14mm deep. The welder was observed performing welding as per the SMAW process in the (1G) flat position on the "A" deck, DAH located at 9E PP84.5 E5. The welder was observed utilizing pre-heat to bring the B-U2a CJP to a minimum temperature of 20°C and this QA Inspector verified the temperature by employing a Tempilstik and observed the use of E7018-H4R electrodes obtained from a remote baking oven. QC Inspector Steve McConnell was observed monitoring the welding and the parameters (Amps=140) so they were in accordance with WPS D1.5-1001- Repair. The welder was also observed cleaning the work utilizing a small disc grinder, brushes and compressed air to clean to shiny metal so as to not introduce additional indications. This QA Inspector made subsequent observations throughout the shift and noted that the work was completed on this date and appeared to be in general compliance with the contract documents.

Summary of Conversations:

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
