

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-027239**Date Inspected:** 23-Feb-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:** Jobsite**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:

8E PP71 E2 Deck Access Hole (Exterior)

This QA Inspector noted that at the end of the shift on 2/22/2012, ABF welder Jason Collins (ID 8128) had completed the root pass implementing the Shielded Metal Arc Welding (SMAW) process pertaining to ABF-WPS-D1.5- 1010-Revision 1 on the deck access hole located at 8E PP71 E2 on the exterior of the OBG. This QA Inspector noted that the work appeared to be in general conformance with the contract documents. On this date at the beginning of the shift, this QA Inspector noted that a linear indication was present along the weld at the east end radius of the DAH joint. (See photos below). A TL-15 was generated on this date.

This QA Inspector randomly observed ABF welding personnel utilize a small disc grinder to remove the outer surface of the root pass down to smooth shiny metal. QC Inspector Chuck Storer was observed performing a Magnetic Particle (MT) inspection to test the soundness of the metal. It was noted that Mr. Storer found no rejectable indications. This QA Inspector randomly observed ABF welder Jason Collins perform the Flux Core Arc Welding with Gas (FCAW-G) process employing a Bug-O with a magnetic base in the 1G flat position on the radius of the B-U3-GF joint. The QC Inspector was observed monitoring the welding and the parameters to ensure compliance with ABF-WPS-D1.5-3010-1. The parameters at this location were recorded as: (A=229/V=23.7/TS=325/HI=1.0). This QA Inspector made subsequent observations throughout the shift to monitor quality and

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noted that the work was in progress and appeared to be in general compliance with the contract documents.

13E PP119.2 E5 Vent Hole (Exterior)

ABF welder Salvador Sandoval was observed utilizing a propane burner to pre-heat the vent hole at 13E PP119.2 E5 prior to performing SMAW in the 1G flat position. This QA Inspector noted that Mr. Sandoval obtained 3.2mm E7018 electrodes from a baking oven and drew amperage of 128 during welding. QC Inspector Fred Von Hoff monitored the welding and the parameters to ensure compliance pertaining to ABF-WPS-D15-1050A-CU and the contract specifications. This QA Inspector observed the welder employ a small disc grinder to blend the start/stop edges of the work as the QC Inspector measured the inter-pass temperatures. This QA Inspector made subsequent observations and noted that the work at this location was completed on this date and appeared to be in general conformance with the contract specifications. The joint at this location is a Seismic Performance Critical Members (SPCM).

FW Spencer Pipe Welding (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 outlets 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. 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.

1/DW1/68/NW, 1/CA2/68/NW

1/DW1/70/NW, 1/CA2/70/NW

1/DW1/72/NW

13E PP119.5 E5 Vent Hole (Exterior)

This QA Inspector observed QC Inspector Fred Von Hoff utilize a Bridge Cam Gage to measure the fit-up of the 20 mm plate in the B-U4a joint on the vent hole at 13E PP119.5 E5. This QA Inspector verified the fit-up as acceptable and employed a 66°C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Salvador Sandoval (ID 2202) performing the SMAW process in the (1G) flat position and observed the QC Inspector verify the welding parameters were in accordance with ABF-WPS-D1.5-1050A-CU. The welder was observed grinding and blending the stop/start edges of the work between passes with the QC Inspector measuring the inter-pass temperatures. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in process and appeared to be in general compliance with the approved WPS and the contract specifications.

Note: This QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report.

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Summary of Conversations:

The were no pertinent conversations to report.



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