

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-027993**Date Inspected:** 17-Jul-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**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 PP112.5-BW2

This QA Inspector randomly observed ABF/JV qualified welder Jason Collins #8128 performing the SMAW process in the 3G vertical position on 12E PP112.5-BW2 on the interior of the OBG. The work at this location was initiated this date. QC Inspector Salvador Merino was observed measuring the preheat temperature and setting the parameters to ensure compliance with the welding procedure specification (WPS) ABF-WPS-D1.

5-1040A-Revision 1. The welder was observed using a small disc grinder to blend the start/stop edges of the work to provide a smooth transition. The welder was observed utilizing 3.2mm E7018-H4R electrodes drawing amperage of 130. The electrodes were obtained from a baking oven verified by this QA Inspector. On a subsequent observation this QA Inspector monitored the work for quality and noted that it was in progress and appeared to be in general conformance with the contract documents.

12E PP113.5-BW1 (Interior)

This QA Inspector made random observations of ABF/JV qualified welder Todd Jackson #4639 performing SMAW in the 3G vertical position on the web joint of 12E PP113.5-BW1 on the interior of the OBG. This QA Inspector observed QC Inspector Sal Merino verify prior to the start of welding operations, that the minimum

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preheat temperature as per the approved WPS was established; and afterwards verified that the welding parameters (Amps) were in accordance with ABF-WPS-D1.5-1040A-Revision 1. The welder was observed grinding and blending the start/stop edges of the work utilizing a small disc grinder and compressed air in between passes. This QA Inspector noted that 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 observations 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.

12E PP111.1-C (Exterior)

This QA Inspector randomly observed ABF/JV qualified welder Xiao Jian Wan #9677 performing the SMAW process in the 3G vertical position on 12E PP111.1-C on the exterior of the OBG. The work at this location was initiated on this date. QC Inspector Salvador Merino was observed measuring the preheat temperature and setting the parameters to ensure compliance with the welding procedure specification (WPS) ABF-WPS-D1.5-1040A-Revision 1. The welder was observed using a small disc grinder to blend the start/stop edges of the work to provide a smooth transition. The welder was observed utilizing 3.2mm E7018-H4R electrodes drawing amperage of 136. The electrodes were obtained from a baking oven verified by this QA Inspector. On a subsequent observation this QA Inspector monitored the work for quality and noted that it was in progress and appeared to be in general conformance with the contract documents.

12E/13E-C

This QA Inspector randomly observed ABF/JV qualified welder Jin Pei Wang #7299 performing the SMAW process in the 3G vertical position on 12E/13E-C on the exterior of the OBG. The work at this location was initiated on this date. QC Inspector Salvador Merino was observed measuring the preheat temperature and setting the parameters to ensure compliance with the welding procedure specification (WPS) ABF-WPS-D1.5-1040A-Revision 1. The welder was observed using a small disc grinder to blend the start/stop edges of the work to provide a smooth transition. The welder was observed utilizing 3.2mm E7018-H4R electrodes drawing amperage of 136. The electrodes were obtained from a baking oven verified by this QA Inspector. On a subsequent observation this QA Inspector monitored the work for quality and noted that it was in progress and appeared to be in general conformance with the contract documents.

13E-K Plate (Interior)

This QA Inspector made random observations of ABF/JV qualified welder Richard Garcia #5892 performing the SMAW process in the 2G horizontal position on 13E-EK-SK1 on the 13E-K Plate on the interior of the OBG. This QA Inspector observed QC Inspector Salvador Merino verify prior to the start of welding operations, that the minimum preheat temperature as per the approved WPS was established; and afterwards verified that the welding parameters (Amps) were in accordance with ABF-WPS-D1.5-1-1070. The welder was observed grinding and blending the start/stop edges of the work utilizing a small disc grinder and compressed air in between passes as QC

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measured the inter-pass temperatures with an infra-red temperature gun. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work at this location was in progress and appeared to be in general conformance with the contract documents.

Summary of Conversations:

Discussed welder assignments and locations with Quality Control Inspector Slavador Merino.



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
