

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-028515**Date Inspected:** 01-Oct-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**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 PP115.5- PS1 (Interior)

This QA Inspector randomly observed the excavation operations of Ultrasonic rejectable indications on the Complete Joint Penetration (CJP) joint on the plate stiffener at 12E PP115.5-PS1 on the interior of the OBG. This QA Inspector observed ABF/JV qualified welder Xiao Hua Luo #1291 performing the Carbon Arc Gouging (CAG) method to remove metal from the material. The welder was observed cleaning up the excavations utilizing a small disc grinder and a de-burring drill. Upon completion of the excavation, Quality Control (QC) Inspector William Sherwood performed a Magnetic Particle Inspection (MT) of the site to determine soundness of the metal and observed no indications, QC then measured the dimensions of the excavations for length, width and depth. This QA Inspector recorded the dimensions of the excavations as:

Y=130mm; 50mm in length, 31mm wide and 10mm deep.

Prior to welding, QC Inspector William Sherwood was observed monitoring and measuring the pre-heat temperatures and parameters as they pertain to ABF-WPS-D1.5-1000-Repair-Revision 0. This QA Inspector made random observations of SMAW in the 2G horizontal position and noted no issues with the work at this location and at the time of this repair, no RWR was required for this first time weld repair. This QA Inspector made

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subsequent observations throughout the shift to monitor quality and it was noted that the E7018-H4R electrodes were stored properly in a sealed container after being opened and they were drawing amperage of 136. The welder was observed continuing the in process repair welding and this QA Inspector noted that no issues were present at this location. QC Inspector William Sherwood was also present to monitor the welding and the parameters in the later stages of the shift. This QA Inspector noted that the work at this location was completed on this date and appeared to be in general conformance with the contract specifications.

12E-E2.1 (Interior)

This QA Inspector randomly observed the excavation operations of Ultrasonic rejectable indications on the Complete Joint Penetration (CJP) joint on the overhead longitudinal deck seam at 12E-E2.1 on the interior of the OBG. This QA Inspector observed ABF/JV qualified welder Wai Kit Lai #2953 performing the Carbon Arc Gouging (CAG) method to remove metal from the material. The welder was observed cleaning up the excavations utilizing a small disc grinder and a de-burring drill. Upon completion of the excavation, Quality Control (QC) Inspector William Sherwood performed a Magnetic Particle Inspection (MT) of the site to determine soundness of the metal and observed no indications, QC then measured the dimensions of the excavations for length, width and depth. This QA Inspector recorded the dimensions of the excavations as:

Y=1940mm; 240mm in length, 30mm wide and 11mm deep, y=2360mm; 270mm in length, 25mm wide and 11mm deep, y=3250mm; 150mm in length, 25mm wide and 9mm deep, y=4170mm; 90mm in length, 30mm wide and 9mm deep, y=4270mm; 80mm in length, 35mm wide and 11mm deep.

Prior to welding, QC Inspector William Sherwood was observed monitoring and measuring the pre-heat temperatures and parameters as they pertain to ABF-WPS-D1.5-1000-Repair-Revision 0. This QA Inspector made random observations of SMAW in the 4G overhead position and noted no issues with the work at this location and at the time of this repair, no RWR was required for this first time weld repair. This QA Inspector made subsequent observations throughout the shift to monitor quality and it was noted that the E7018-H4R electrodes were stored properly in a sealed container after being opened and they were drawing amperage of 134. The welder was observed continuing the in process repair welding and this QA Inspector noted that no issues were present at this location. QC Inspector William Sherwood was also present to monitor the welding and the parameters in the later stages of the shift. This QA Inspector noted that the work at this location was completed on this date and appeared to be in general conformance with the contract specifications.

12E PP116-BW3/BW2 (Interior)

This QA Inspector randomly observed the excavation operations of Ultrasonic rejectable indications on the Complete Joint Penetration (CJP) joint on the vertical beam webs at 12E PP116-BW3 and BW2 on the interior of the OBG. This QA Inspector observed ABF/JV qualified welder James Zhen #6001 performing the Carbon Arc Gouging (CAG) method to remove metal from the material. The welder was observed cleaning up the excavations utilizing a small disc grinder and a de-burring drill. Upon completion of the excavation, Quality Control (QC) Inspector William Sherwood performed a Magnetic Particle Inspection (MT) of the site to determine soundness of the metal and observed no indications, QC then measured the dimensions of the excavations for length, width and depth. This QA Inspector recorded the dimensions of the excavations as:

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Y=300mm; 110mm in length, 37mm wide and 10mm deep, BW2 - y=230mm; 70mm in length, 27mm wide and 10mm deep.

Prior to welding, QC Inspector William Sherwood was observed monitoring and measuring the pre-heat temperatures and parameters as they pertain to ABF-WPS-D1.5-1000-Repair-Revision 0. This QA Inspector made random observations of SMAW in the 3G vertical position and noted no issues with the work at this location and at the time of this repair, no RWR was required for this first time weld repair. This QA Inspector made subsequent observations throughout the shift to monitor quality and it was noted that the E7018-H4R electrodes were stored properly in a sealed container after being opened and they were drawing amperage of 136. The welder was observed continuing the in process repair welding and this QA Inspector noted that no issues were present at this location. QC Inspector William Sherwood was also present to monitor the welding and the parameters in the later stages of the shift. This QA Inspector noted that the work at this location was completed on this date and appeared to be in general conformance with the contract specifications.

Summary of Conversations:

Conversations relevant to work performed.

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 Gary Thomas 916-764-6027 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Reyes,Danny	QA Reviewer
