

**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-026733**Date Inspected:** 17-Nov-2011**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

<b>CWI Name:</b>	As noted below		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

<b>CWI Present:</b>	Yes	No	
<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved WPS:</b>	Yes	No	N/A
<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Component:</b>	SAS OBG		

**Bridge No:** 34-0006**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:

- 12W/13W/W5/LS5 Repair Welding (Interior)
- 14W/PP126.7/W2.9 Vent Hole (Interior)
- 14W/PP126.7/W3.7 Vent Hole (Interior)

- 12W/13W/W5/LS5 Repair Welding (Interior)

This QA Inspector randomly observed ABF welder Mr. Fred Kaddu performing the back-gouge operation of an ultrasonic rejectable indication on "A" deck Longitudinal Stiffener 12W/13W/W5/LS5 located at "Y" 0- 200 mm: (28 mm wide; 200 mm length; and 17 mm in depth). This QA Inspector observed QC Inspector William Sherwood perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. Upon completion of the testing this QA Inspector verified that no rejectable indications were present.

This QA Inspector randomly observed ABF welder Fred Kaddu (Welder ID 2188) performing the repair welding operation of an excavation as per the Shielded Metal Arc Welding (SMAW) process in the (3G) vertical position on "A" deck Longitudinal Stiffener 12W/13W/W5/LS5. This QA Inspector observed the use of E9018-H4R electrodes and QC Inspector William Sherwood verify that the preheat temperature was at the minimum of 200 degrees F and that the welding parameters (Amps=127) were in accordance with WPS D1.5 –

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1012-3 Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

Orthotropic Box Girder (OBG) section: The QC Documents observed being used by this QA Inspector for the following weld joints appeared to be designated as Seismic Performance Critical Members (SPCM).

2. 14W/PP126.7/W2.9 Vent Hole (Interior)

This QA Inspector observed ABF welder Mike Jimenez (ID 4671) pre-heat the joint to 10°C prior to performing SMAW in the 4G overhead position on Vent Hole (VH) 14W/PP126.7/W2.9. This QA Inspector observed QC Inspector Sal Merino monitor the inter-pass temperatures and the welding to ensure the parameters were in compliance pertaining to ABF-WPS-D15-1110A-Revision 1. The parameters were recorded as (Amperes=195) utilizing a 4.8 mm E7018-H4R electrode. This QA Inspector randomly observed the ABF welder grind and blend the start and stop areas of the weld throughout the joints depth. 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 conformance with the contract specifications.

3. 14W/PP126.7/W3.7 Vent Hole (Interior)

This QA Inspector randomly observed ABF welder Jorge Lopez performing the back-gouge operation on face B of vent hole 14W/PP126.7/W3.7 on the interior of the OBG. This inspector observed QC Inspector Sal Merino test the back-gouge utilizing the Magnetic Particle (MT) method and this QA Inspector verified that no rejectable indications were present.

This QA Inspector randomly observed ABF welder Jorge Lopez (Welder ID 6149) performing the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on "A" deck vent hole 14W/PP126.7/W3.7. This QA Inspector observed QC Inspector Sal Merino verify that the pre-heat temperature was at a minimum of 10 degrees C and that the welding parameters (Amps=270) were in accordance with ABF-WPS-D1. 5-1110A-Revision 1. 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.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. No issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

**Summary of Conversations:**

The were no pertinent conversations to report.

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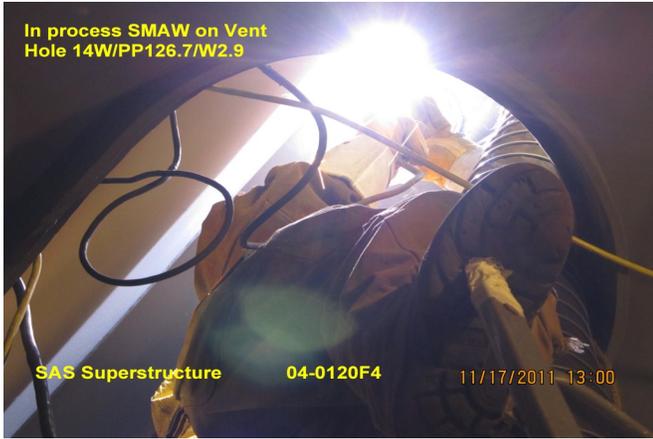
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## Comments

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.

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**Inspected By:** Frey,Doug

Quality Assurance Inspector

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**Reviewed By:** Levell,Bill

QA Reviewer