

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-027875
Date Inspected: 28-Jun-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: 1930
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-E2.1 (Exterior)

This QA Inspector at periodic intervals observed ABF/JV qualified welders Richard Garcia #5892 perform the Flux Core Arc Welding (FCAW) process in the 1F flat position on the seal passes of 12E-E2.1 located at y+100mm to y+2000mm, ABF/JV qualified welder Jeremy Dolman #5042 located at y+5000mm to y+7000mm and ABF/JV qualified welder Rory Hogan #3186 at y+31,000mm to y+28,000mm on the exterior of the OBG. This QA Inspector observed QC Inspector Fred Michels 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, Volts and Travel Speed) were in accordance with ABF-WPS-D1.5-1-F3200-Revision 2. The welders were observed grinding and blending the start/stop edges of the work utilizing small disc grinders and compressed air in between passes as QC measured the inter-pass temperatures with an infra-red temperature gun. This QA Inspector verified the use of the E71T-1M ESAB Dual Shield 70 Ultra Plus Electrodes and that they were obtained from an unopened container. 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.

5E PP29.5 E2-DAH (Interior)

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This QA Inspector randomly observed the Shielded Metal Arc Welding (SMAW) process in the 4G overhead position on the Deck Access Hole (DAH) located at 5E PP29.5 E2-DAH on the exterior of the OBG. ABF/JV qualified welder Roby Smith #4245 was observed cleaning the weld between passes utilizing a small disc grinder and compressed air to blend the start/stop edges for a smooth transition. The welder was observed utilizing E7018-H4R electrodes and this QA Inspector verified that the electrodes were recently obtained from a baking oven. QC Inspector Fred Michels was observed measuring the inter-pass temperatures by employing an infra-red temperature gun as well as monitoring the welding and the parameters. It was noted that the welder was drawing amperage of 127 utilizing 3.2mm electrodes. The welder was observed running multiple pass stringers while adhering to ABF-WPS-D1.5-1010-Revision 1. On a subsequent observation, the welder was observed continuing work on the B-U2a Complete penetration Joint (CJP) and was employing the same routine to clean the passes. 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 the contract specifications.

12E Corner Drop-In Panel (Interior)

This QA Inspector randomly conducted fit up and measurement of the 12E Corner Drop-In Panel on the interior of the OBG. QC Inspector Salvador Merino utilized a Bridge Cam gage to measure the planar offset of the E3 seam located on Bottom Plate "D" where the existing Plate thickness averaged 22mm to the 18mm Drop-In Plate. The work at this location is in progress and appeared to be in general conformance with the contract specifications.

5E PP29.5 E2-DAH (Interior)

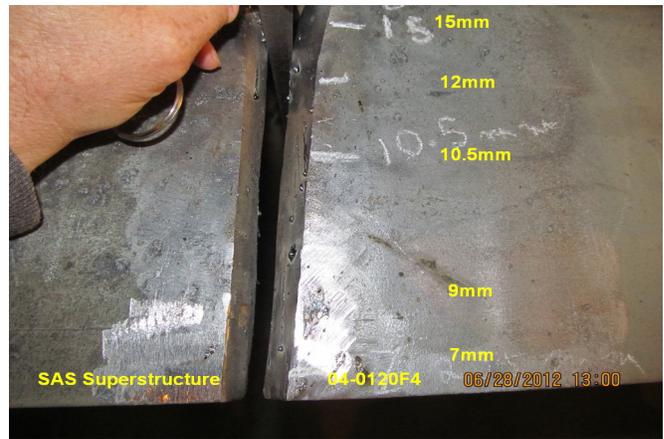
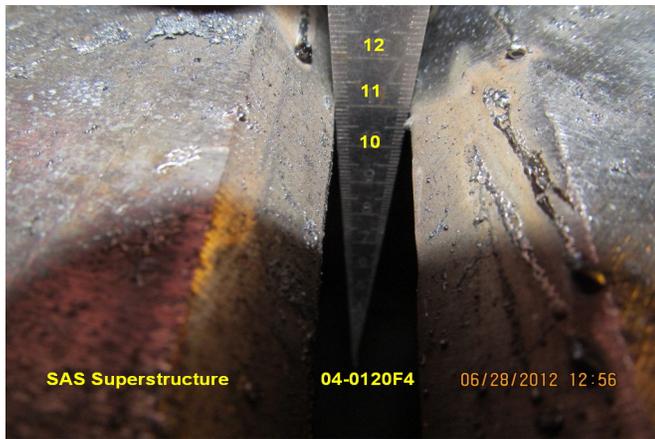
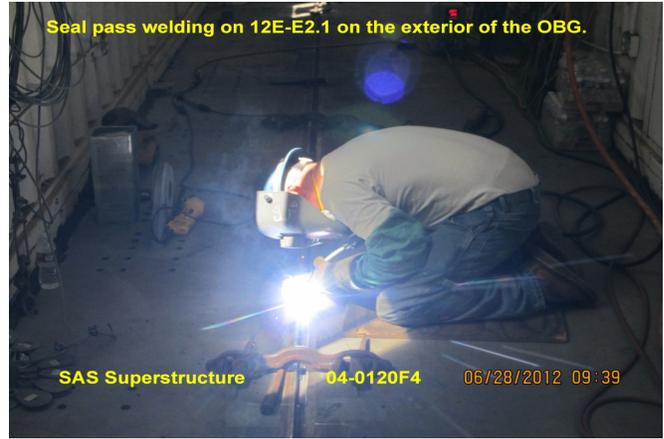
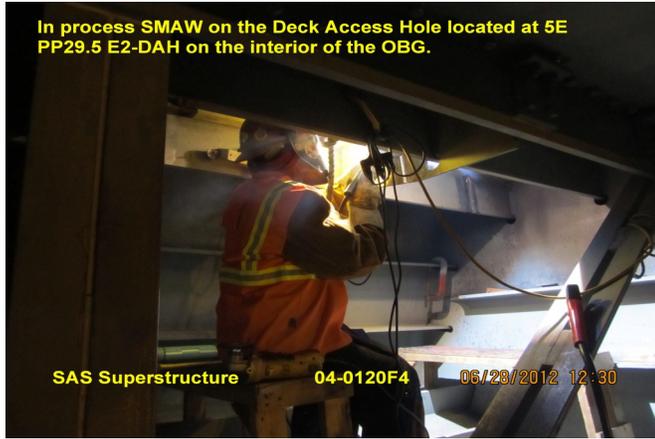
This QA Inspector conducted fit up operations and planar alignment measurements on the Longitudinal Stiffener West (LSW) on the Deck Access Hole at 5E PP20.5 E2-DAH on the interior of the OBG. This QA Inspector observed that the Root Opening varied from 7mm at the bottom of the joint to in excess of 15mm at the top of the joint. This QA Inspector generated an Incident Report on this date and notified METS QA Lead Inspector Danny Reyes and METS QA Task Leader Bill Levell via email for review and disposition of the report due to the non-compliance with AWS D1.5-2002 - Section 3.3 - Assembly 3.3.4.2 Root openings larger than those allowed in 3.3.4.1 may be corrected by welding only with the approval of the Engineer. See attached photos for further details.

Summary of Conversations:

This QA Inspector discussed the disposition of the Longitudinal Stiffener West (LSW) at 5E PP29.5 E2-DAH with Quality Control Manager Bonifacio Daquinag Jr. QC will be submitting an RWR.

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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.

Inspected By: Frey,Doug

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer