

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-027653
Date Inspected: 22-May-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: 1730
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:

13E Drop-In Panels (Interior)

This QA Inspector randomly observed ABF welders performing Shielded metal Arc Welding (SMAW) on the Seismic Performance Critical Member (SPCM) Complete joint Penetration (CJP) welds on the 13E Drop-In Panels 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 preheat temperature as per the approved WPS was established; and afterwards verified that the welding parameters (Amps and Travel Speed) were in accordance with ABF-WPS-D1.5-1040C-CU. ABF welder Salvador Sandoval (ID 2202) was observed working in the 4G overhead position on the CJP joint at 13E-E2.2 and 13E PP123.6. On subsequent observations throughout the shift it was noted that the welds at these locations were completed on this date and appeared to be in general conformance with the contract documents. ABF welder Steven Davis (ID 7889) was observed performing SMAW in the 4G overhead position on 13E PP121.6 and was noted as being in progress by the end of the shift. ABF welder Khit Lounechaney (ID 4985) continued work on 13E-E2.5 and was completed on this date and appeared to be in general conformance with the contract specifications. Throughout the shift the welders were observed cleaning the start/stop edges of the work utilizing small disc grinders to smooth and blend the transitions and compressed air to clear the debris. The welders were noted as continuing the production welding and between passes the QC Inspector verified the welding parameters and surface temperatures utilizing a Fluke 337 clamp meter to measure the electrical welding

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parameters and Tempilstik Heat Indicators for verifying the preheat and inter-pass temperatures. This QA Inspector noted that the 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. ABF welder Edward Brown (ID 9331) was observed performing the SMAW process in the 3G vertical position on the Longitudinal Stiffener (LS) located at 13E/14E-LS3. This QA Inspector made random observations of the welder utilizing E9018-H4R electrodes and the Pro-Heat 35 thermal heating blankets for face "A" of the CJP to pre-heat and provide constant heat to the work. QC Inspector Sal Merino verified the temperature and recorded the parameters as acceptable and within the requirements of ABF-WPS-D1.5-1012-3. The welder was observed welding the height of the joint followed by grinding and blending of the work utilizing a small disc grinder. On subsequent observations to monitor quality it was noted that the work on LS-3 was in progress and appeared to be in general conformance with the contract specifications.

13E Drop-In Panels (Exterior)

This QA Inspector made random observations of QC Inspectors Steve McConnel and Bernie Docena performing Ultrasonic Inspection (UT) of the completed weld joint at 13E-A1 from 4300mm to 5500mm, 13E-A2.1 from 0mm to 1850mm and 13E-E2.8 from 11900mm to 9900mm. QC was observed scanning from each side of the weld and at rotating angles to the axis as well as the weld surface for the Seismic Performance Critical Member (SPCM) requirement. On subsequent observations to monitor quality it was noted that the work at this location was in progress and appeared to be in general conformance with the contract specifications and SE-UT-D1.5-CT-100.

13E-E2.8 (Exterior)

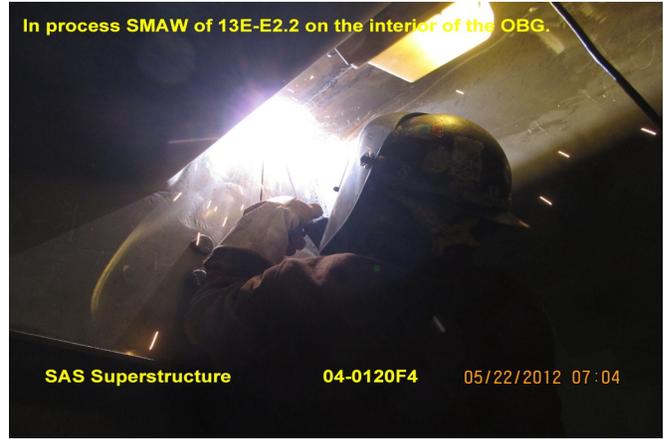
This QA Inspector made random observations of QC Inspector Sal Merino performing Magnetic Particle Inspection (MT) on the completed weld at 13E-E2.8 on the exterior of the OBG. The QC Inspector was noted utilizing the yoke in right angles and parallel to the joint axis as well as 45° angles. Upon completion of the testing it was noted that Mr. Merino found no rejectable indications. Upon acceptance by Quality Control, this QA Inspector performed MT testing on 10% of 13E-E2.8. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

Summary of Conversations:

This QA Inspector met with QC Inspector Sal Merino pertaining to 13E Drop-In Panels progress and required testing for the shift.

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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
