DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-019236
Date Inspected: 11-Jan-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 1000
OSM Departure Time: 1830
Location: Job Site

CWI Name: Gary Ershan and William Sherwood

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: Orthotropic Box Girder

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 8W/9W edge plate ‘F’ outside, QA randomly observed ABF/JV qualified welder Mick Chan continuing to perform fill pass to cover pass welding on the Complete Joint Penetration (CJP) splice butt joint. The welder was observed manually welding in the 3G (vertical) position utilizing a Shielded Metal Arc Welding (SMAW) with 5/32” diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040B. The joint being welded has a single V-groove butt joint with copper backing bar. ABF Quality Control (QC) Gary Ersham was noted monitoring the welding parameters of the welder. QA randomly monitored the welding parameter with reading of 160 amperes which appears in conformance to the contract requirements. At the end of the shift, SMAW cover pass welding was still continuing and should remain tomorrow.

At OBG 8W/9W top deck plate ‘A’ outside, QA randomly observed ABF/JV qualified welder Wai Kitlai perform CJP repair welding. The welder was noted welding in 1G (Flat) position utilizing Shielded Metal Arc Welding (SMAW) with 5/32” and 1/8” diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1001 Repairs. The welding repairs were excavated to a boat shape profile and were tested with Magnetic Particle Testing (MT) prior welding. During welding, ABF QC Gary Ersham was noted monitoring the welder and his welding parameters. Welding parameter measured at the time of welding were 180 amperes and 136 Amperes respectively on the electrodes mentioned above which appears in compliance to the

WPS. The locations of the repairs were noted below;

	Location	Y-dimension	Length	Width	Depth	Remarks
1.	A4	2565mm	115mm	22mm	14mm	Completed
2.	A5	3115mm	165mm	25mm	14mm	Completed
3.	A5	240mm	130mm	24mm	11mm	Completed
4.	A5	530mm	165mm	25mm	14mm	Completed

At OBG 9E panel point PP72 to side plate 'E' outside, QA randomly observed ABF welder Earl Espinoza perform fillet and partial joint penetration (PJP) welding in 2F/2G position using SMAW with 1/8" diameter E7018H4R electrode. The welders were welding on 2 ¼" wide x 3/8" thick drip plate to the side plates of the OBG. The drip plate and the surface of the side plate (where the drip plate was welded) were noted ground and the paint coating removed. ABF QC Gary Ersham was noted monitoring the welding and its parameters. During the shift, fillet and PJP welding at location mentioned was stopped due to rain shower at job site.

At OBG 4W-PP25-W3- #4 outside - ABF welder Darcel Jackson was observed fit up/tack welding the infill plate to top deck plate. After the completion of the fit up, ABF QC Mike Johnson verified the alignment acceptable. QA has concurred the fit up alignment and the welder welded the root pass and followed by fill pass. The welder was noted using 1/8" diameter E7018H4R electrode during root pass welding and used 3/16" diameter E7018H4R electrode during fill pass welding. But due to rain that was experienced at the job site, fill pass welding was not completed and the welder has moved inside the OBG and back gouged the lifting lug access holes that were completed from the top deck.

At OBG 3W-PP22-W4- #1 outside – ABF welder Mike Jimenez was observed continuing to perform 1G SMAW back welding fill pass to cover pass on the infill plate to top deck plate butt joint. The welder was noted using 5/32" diameter E7018H4R electrode. During the shift, fill pass welding was completed and the welder has moved to #3 lifting lug access hole to perform fit up/tack welding when the rain started pouring. Due to this bad weather, the welder has moved inside the OBG and back gouged the lifting lug access holes that were completed from the top deck.

WELDING INSPECTION REPORT

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Summary of Conversations:

No significant conversation ocurred today.

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 SMR Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer