

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-028952
Date Inspected: 07-Jan-2013

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:** Job Site

CWI Name:	Fred Michels and Barry Drake			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 Tower and OBG		

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 Tower elevation 154meter, ABF welder Ric Chouinard was observed continuing to perform all around 8mm fillet welding on two (2) 300mm long x 150mm wide x 12mm bracket plate for Tower Head to grillage ladder between south shaft and east shaft chimney. The welder was noted using Shielded Metal Arc Welding (SMAW) with 3.2mm E7018H4R electrode implementing ABF-WPS-D1.5-F1200A. The bracket plate being welded is the holding bracket for the tower head to grillage ladder. Prior welding, the plates were preheated using propylene gas torch. During the shift, ABF QC Fred Michels was noted on site monitoring the welder Ric Chouinard and Richard Garcia. At the end of the shift, welding of the two bracket plates for the ladder was completed.

At Tower elevation 155meter, ABF welder Richard Garcia was observed continuing to perform all around 8mm fillet welding on two (2) 212.4mm long x 150mm wide x 12mm bracket plate for East/West diaphragm ladder mitigation per drawing LASA6 between north shaft and east shaft chimney. The welder was noted using self-shielded Flux Cored Arc Welding (FCAW-S) with 1.6mm E71T-8 wire electrode implementing ABF-WPS-D1.5-F2200-3. The bracket plate being welded is the holding bracket for the mitigated ladder. Prior welding, the plates were preheated using propylene gas torch. During the shift, ABF QC Fred Michels was noted on site monitoring the welder Ric Chouinard and Richard Garcia. At the end of the shift, welding of the two bracket plates for the ladder mitigation was completed.

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At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on fillet welded joints mentioned below. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

1. Pipe support assembly IPS25 at tower elevation 157meter – all around fillet weld joints cover QA verified.

At OBG 13E top deck plate outside, ABF welder Mike Jimenez was observed performing base metal repair on the deck plate due to removal of welded temporary attachments. The welder was using Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode. The welder was also noted cleaning/grinding the surface of the gouges and preheating the plate to more than 150°F prior welding. According to the welder, he was instructed by his foreman to perform the repair just as the QA observations has mentioned. This QA has asked the ABF QC Barry Drake if there was an approval for the base metal repair but he responded that it was only verbal approval from ABF QC Manager Jim Bowers. Due to the absence of proper approval prior to the base metal repair, this QA has issued an Incident Report.

During the shift, ABF QC John Hayes was noted performing Magnetic Particle Testing (MT) on the completely welded base metal repair at 13E-PP120.5-E2.1 when four linear indications were noted. These indications were mentioned to ABF foreman Ric Clayborn and that a Request for Weld Repair (RWR) should be initiated. The foreman ignored the conversation and proceeded to repair the linear indications around the three bolt holes without the proper approval from the Engineer. Due to this infraction, an Incident Report was also issued to ABF.

FW Spencer:

At tower elevation 143meter, this QA randomly observed FW Spencer qualified welder Damian Llanos perform Complete Joint Penetration (CJP) 2G (horizontal position) Shielded Metal Arc Welding (SMAW) welding root pass to cover pass on 3” diameter compressed air and 2” diameter domestic water lines. The system lines being welded are field splices along the tower elevation. The welder was noted welding the root pass with 3/32” diameter E6010 electrode and followed by fill pass to cover pass using 3/32” diameter E7018H4R electrode implementing Caltrans approved procedure FW Spencer WPS 1-12-1. The welder was noted preheating and removing the moisture of the joint using a portable propane gas torch prior welding. During welding, ABF QC Steve Jensen was noted monitoring the parameters of the welder. At the end of the shift, one (1) 3” diameter field splice was completed and visually accepted by QC but the 2” diameter domestic water line was still in-progress. This QA performed VT verification on the completed weld splice and it appears in compliance to the Contract requirements.

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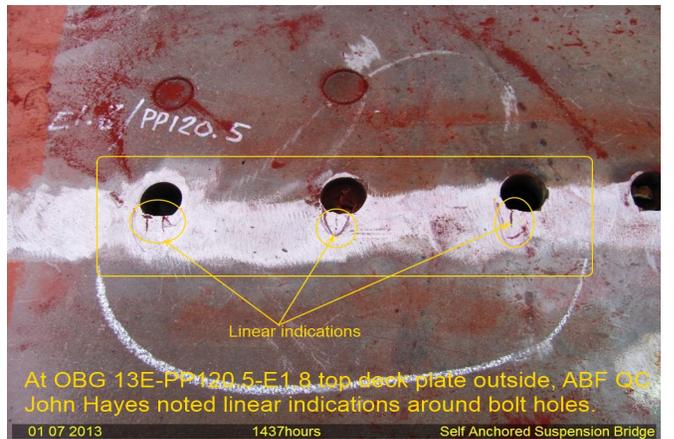
At Tower elevation 145meter, FW Spencer welder Damian Llanos was observed performing 2G (horizontal) position Shielded Metal Arc Welding (SMAW) welding root pass to cover pass on 3" and 2" diameter utility lines.



At OBG 13E drop-in top deck plate outside, ABF welder Mike Jimenez was observed perform base metal welding repair on temporary welded attachments.



At Tower elevation 147meter, ABF QV Fred Michels was observed performing Magnetic Particle Testing (MT) on completely fillet welded bracket assembly for utility pipe lines.



Summary of Conversations:

No significant conversation occurred 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 Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Reyes, Danny

QA Reviewer