

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015548**Date Inspected:** 09-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	William Sherwood and Bernie Do			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.

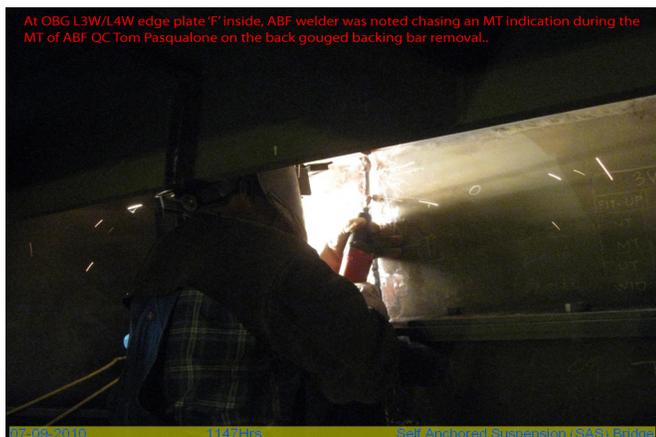
At OBG L3E/L4E bottom plate 'D' outside, QA randomly observed ABF/JV qualified welder Fred Kaddu continuing to perform CJP groove welding repair. The welder was observed welding in the 4G (overhead) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The weld repairs were excavated to a boat shape. The repair excavations were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC William Sherwood was noted monitoring the welder. Prior welding, ABF QC William Sherwood was also observed performing Magnetic Particle Testing (MT) on the repair excavations. During the shift, the welder has completed three welding repairs outside with one repair having dimension of 1120mm long X 18mm wide X 14mm deep. With the completion of the three repairs, that should complete all the repairs outside the plate. After completing all the repairs from the outside, the welder was noted flush grinding all the repairs that he welded in preparation for the Ultrasonic Testing (UT) testing to be conducted after the 24 hour cooling period.

At OBG L4E/L5E bottom plate 'D' outside, QA observed ABF QC Jesse Cayabyab perform Magnetic Particle Testing (MT) and after its completion, QC also performed Ultrasonic Testing (UT) on the welded and flush ground splice butt joint. During the MT, QC has found no significant defects during the test but found five indications during his initial UT test on the joint. UT test was not completed during the shift and should continue on the next working day.

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At OBG L5E/L6E side plate 'E' (3840mm to 7545mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 perform CJP groove (splice) welding fill pass on the splice butt joint. The welder was observed performing automatic welding in the 3G (vertical) position utilizing a dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3042A-1. The joint being welded had a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System located at the opposite side of the plate prior/during welding. During welding, ABF Quality Control (QC) Bernie Docena was noted monitoring the welding parameters of the welder. At the end of the shift, fill pass welding was still continuing and welding of the splice at the location mentioned was not completed.



Summary of Conversations:

With the welding completion of the repairs on the outside of OBG L3E/L4E bottom plate 'D' outside, ABF QC Jesse Cayabyab informed this QA that he will perform the UT of the welded repairs on Monday to keep the 24 hours cooling period. QC also mentioned that the initial UT result on the OBG L4E/L5E bottom plate 'D' outside was not as bad as the OBG L3E/L4E bottom plate 'D' outside.

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 Mohammad Fatemi (916) 227-5298, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer