

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015590**Date Inspected:** 12-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:	Jesse Cayabyab and Bernie Docena			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 L5E/L6E side plate 'E' (3840mm to 7545mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 continuing to perform CJP groove (splice) welding cover 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 the shift, the welder has completed the cover pass on the location mentioned above and has moved his Bug-o motorized track to higher elevation/location (1000mm to 3840mm) of the same plate. The welder had welded the root pass and continued welding fill passes during the shift. 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 new location was not completed.

At OBG L4E/L5E bottom plate 'D' inside, QA observed ABF QC Jesse Cayabyab perform Ultrasonic Testing (UT) on the welded splice butt joint. During the UT, QC informed this QA that he had performed the MT earlier and had found no significant defects during the test. QC also requested QA to perform the MT verification test. But prior to perform the QA MT verification, QA did a visual test (VT) on the cover of the splice butt joint.

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

During the VT, there were five locations that were noted to have undercut that need to be fixed. This was relayed to QC who also informed this QA that they will be fixed by ABF. QC had continued performing the UT during the shift and found five rejectable indications during test.

At OBG L3E/L4E bottom plate 'D' inside, QA randomly observed ABF/JV qualified welder Fred Kaddu continuing to perform CJP groove welding repair. The welder was observed welding in the 1G (flat) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The weld repair was excavated to a boat shape. The repair excavation was 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 excavation. During the shift, the welder has completed one welding repair inside and has moved to OBG L4E/L5E bottom plate 'D' inside to perform more welding repairs. The welder was noted excavating the repair inside and has not performed any welding until the end of the shift.



Summary of Conversations:

At OBG L4E/L5E bottom plate 'D' inside, QC Jesse Cayabyab informed this QA that QC has found five more repairs from the inside aside from the confirmed repairs from the outside. During the conversation, QA informed QC about the undercut on five locations that were noted during the VT prior to perform MT. QC acknowledged the presence of the undercut and informed QA that QC will ask ABF to fix them.

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