

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-027231
Date Inspected: 22-Feb-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:	Salvador Merino/Fred Von Hoff	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:	OBG Components	

Summary of Items Observed:

On this date, Quality Assurance Inspector (QAI) Kenneth Riley was present at the San Francisco Oakland Bay Bridge job site at Yerba Buena Island to observe erection and welding activities for the San Francisco Oakland Bay Bridge (SFOBB) project. This Quality Assurance Inspector (QAI) observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

- A) Vent Hole 13E (SPCM)
- B) Tracking Logs
- C) Training

A). Vent Hole 13E (SPCM)

The QAI observed that welder Salvador Sandoval, was using the Shielded Metal Arc Welding (SMAW) process, with electrode E7018 for the Complete Joint Penetration weld in the flat (1G) position at 13E PP119.2 E5 Vent Hole. The QAI observed that the welder had fit the 20mm plate insert at this location with the copper backing. The QC inspector Salvador Merino had verified the fit-up and found it to be acceptable. This information was relayed to the QAI by QC inspector Fred Von Hoff. This QAI observed that the Welding Procedure Specification (WPS) used for this location was ABF-WPS-D15-1050A-CU and a 3.2mm electrode was used for the root and hot passes. The welding parameters were verified by this QAI as 133 amps. The welder was observed using a weed burner to pre-heat the area prior to welding at 40 degrees Celsius (150 degrees F) which was verified using a tempstik and infrared gun by the QC. The welder was also observed by this QAI as using a chipping hammer, power grinder and power wire wheel for the interpass cleaning. The QC inspector for this location was Fred Von Hoff and was

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

B). Submittal Review

This QAI performed reviews for the welding/NDT tracking logs. These logs was updated according to the submitted and approved Magnetic particle (MT) and Ultrasonic Testing (UT) reports received from fellow QA Inspectors located on the project. The reports were verified by location and method. This QAI updated the log according to the QA inspectors reviews performed onsite. The logs are hard copies that are split into 3 different categories. They are NDT of transverse field splices and stiffeners, Deck access holes, Lifting lug holes, and Vent holes which are tracked accordingly. They have been placed in the 3 ring binders located at the pier 7 METS office.

C). Training

This QAI along with additional Caltrans personnel received onsite training for the use and operations of the bike path traveler rail system located on the skyway. ABF personnel demonstrated the proper technique in attaching temporary drop in pieces located at expansion joints so the traveler system can be properly operated and the air hose system during operations. The training was for future work and inspection by Caltrans concerning the bike path on the skyway.

The QA inspector observed the QC activities and the welding utilizing the WPS's as noted above, which appeared to be posted at the weld station. The welding parameters and surface temperatures were verified by the QC inspectors utilizing a Fluke 337 clamp meter for the electrical welding parameters and a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. The consumables utilized for the welding process stated appeared to comply with the AWS Specification and AWS Classification. The QC inspection, testing and welding performed on this shift appeared to be in general compliance with the contract documents. At random intervals, the QAI verified the QC inspection, testing, welding parameters and the surface temperatures utilizing various inspection equipment and gages which included a Fluke 337 Clamp Meter and Tempilstik Temperature indicators.

Unless noted otherwise, all work observed on this date appeared to be in general compliance with the contract documents at the time of observations.

Summary of Conversations:

Basic conversation, fundamental to completion of the tasks at hand, occurred between this QAI and ABF QC personnel.

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:	Riley, Ken	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
