

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017364**Date Inspected:** 11-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** See below**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 OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). OBG Field Splice 6W/7W Weld ID: E1, Face A (FCAW-G)
- 2). OBG Field Splice 5W/6W Weld ID: E2, Face A (SMAW UT repairs)
- 3). OBG Field Splice of Ventilation Access Insert Weld E1 PP10.5 E2S (QAI Verification)

- 1). OBG Field Splice 6W/7W Weld ID: E1, Face A - (FCAW-G)

The QAI periodically observed AB/F approved welder Song Tao Huang (ID 3794) performing semi automatic welding per the Flux Cored Arc Welding (FCAW-G) process in the 3G (vertical) position of cover passes on weld ID: E1. Later in the shift, the QAI periodically observed the same welder performing manual welding per the FCAW-G process in the 3G position of fill and cover passes on the 1st 1000mm of weld E1. The QAI observed QC Inspector John Pagliero was present to monitor the progress and verify that the welding parameters were within the limits established by the approved Welding Procedure Specification (WPS) identified as ABF-WPS-D1. 5-3042B-1. See photo below. The QAI observed that the work at this location was in process for the duration of the shift and appeared to be in general compliance with contract documents

- 2). OBG Field Splice 6E/7E Weld ID: E1 & E2, Face A

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position of OBG Field Splice 5W/6W Weld ID: E1 & E2, to repair Ultrasonic Testing (UT) rejectable areas. QC Inspector Jesse Cayabyab was present to monitor the

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000 Repair. The QAI observed that Mr. Kaddu completed welding of (2) two excavations at the following locations: Weld E2 - Y = 5050, Length = 80mm and Depth = 8mm, Weld E1 - Y = 70, Length = 180mm and Depth = 5mm. The QAI was approached by QC Mr. Cayabyab and informed of the status of UT rejects in OBG Field Splice 4W/5W Weld ID D2. See Summary of Conversations below. The QAI observed that the welding at the two locations described above was completed and work at this location appeared to be in general compliance with contract documents.

3). OBG Field Splice of Ventilation Access Insert Weld E1 PP10.5 E2S (QAI Verification)

The QAI performed verification Visual Testing (VT) of 100% and Ultrasonic Testing (UT) of approximately 14% of the length of OBG Field Splice of the Ventilation Access Insert Weld at E1 PP10.5 E2S. The Insert Weld at E1 PP10.5 E2S verified by the QAI did not appear to be in general compliance with contract documents. The QAI VT results revealed (2) two isolated area of porosity open to the surface at a location of approximately Y = 2600mm and the other at a location of approximately Y = 3720mm. The QAI UT results revealed (1) rejectable Class A indication, one located at Y = 1100mm. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date. See Summary of Conversations below.



Summary of Conversations:

At the beginning of the QA Inspector's shift, the QAI approached Lead QC Inspector Bonafacio Daquinag to inquire as to locations ready for QAI Verification. Mr. Daquinag stated that the R-1 UT repair areas in the Ventilation Access Insert Weld at E1 PP10.5 E2S had been found to be QC acceptable by QC Inspector Steve McConnell. The QAI told Mr. Daquinag that the QAI would perform QAI verification on this date.

From item 2).

The QAI was approached by QC Inspector Jesse Cayabyab and informed that he had completed UT of repairs in the OBG Field Splice 4W/5W Weld ID D2 and that he had found a rejectable indication in an R-2 Repair area which would be an R-3 repair and would need engineering approval.

From item 3).

After completing the QAI verification, the QAI approached QC Inspector Steve McConnell and informed him of the QAI results. Mr. McConnell stated that he would perform QC UT to confirm the QAI results after the lunch break. After the lunch break and approximately 1 hour prior to the end of the QA Inspector's shift the QAI located QC Mr. McConnell. The QAI inquired as to whether the QC Inspector had confirmed the QAI identified UT rejectable indication in E1 PP10.5 E2S. Mr. McConnell stated that when he performed UT he was unable to obtain a rejectable rating at the location identified by the QAI. The QAI asked if together the QAI and QC Inspector

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

could UT the area in question. Mr. McConnell stated that he could possibly meet the QAI in 30 minutes. Due to the proximity of the end of the QA Inspector's shift, it was agreed upon that the QC UT confirmation could take place in the AM on 10/12/10.

Other conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities.

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 Mohammed Fatemi (916) 813 3677, who represents the Office of Structural Materials for your project.

Inspected By:	Madison,Bert	Quality Assurance Inspector
----------------------	--------------	-----------------------------

Reviewed By:	Levell,Bill	QA Reviewer
---------------------	-------------	-------------