

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-015754**Date Inspected:** 21-Jul-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 1W/2W Weld ID: B1, Face B
- 2). OBG Field Splice 1W/2W Weld ID: F1, Face B
- 3). OBG Field Splice 5W/6W Weld ID: D1 & D2, Face A
- 4). OBG Field Splice 5W/6W Weld ID: A1, A2 & A3, Face A

- 1). OBG Field Splice 1W/2W Weld ID: B1, Face B

The QAI periodically observed AB/F approved welder Fred Kaddu (2188) performing repair welding (UT repairs) on the B face of OBG Field Splice 1W/2W Weld ID: B1. The welding was per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. SE QC Inspector Tony Sherwood 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-D1.5-1001 Repair. The welding was completed and the work at this location appeared to be in general compliance with contract documents.

- 2). OBG Field Splice 1W/2W Weld ID: F1, Face B

The QAI periodically observed AB/F approved welder Fred Kaddu (2188) performing repair welding (UT repairs) on the B face of OBG Field Splice 1W/2W Weld ID: F1. The QAI observed three excavated areas that included four rejectable UT indications. The QAI observed SE QC Inspector Tony Sherwood performing Magnetic Particle

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Testing (MT) of the excavated areas prior to the commencement of welding. The QAI observed that the performance and evaluation of the MT appeared to comply with the MT procedure identified as SE-MT-CT-D1.5-101 Rev. 4. The welding was per the SMAW process in the 3G (vertical) position. SE QC Inspector Tony Sherwood 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-D1.5-1001 Repair. The welding was in process and the work at this location appeared to be in general compliance with contract documents.

3). OBG Field Splice 5W/6W Weld ID: D1 & D2, Face A

The QAI periodically observed the in process welding of the OBG Field Splice 5W/6W weld ID: D1 & D2 Face A per the SMAW process in the 1G (flat) position by approved AB/F welder Kenneth Chappell (ID 3833). The SE QC Inspector Mike Johnson 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 by the QC inspector as ABF-WPS-D1.5-F1200A. SMAW was performed in addition to the Submerged Arc Welding (SAW) to complete cover passes adjacent to stiffeners that were not accessible to the SAW welding electrode. See photo below. Welding of the SMAW passes was completed at this location. The QAI periodically observed the in process grinding of SAW excessive reinforcement for the remainder of the shift.

4). OBG Field Splice 5W/6W Weld ID: A1, A2 & A3, Face A

The QAI periodically observed SE QC Inspector Steve McConnel performing Ultrasonic Testing (UT) from the A Face of OBG Field Splice 5W/6W Weld ID: A1, A2, A3 & A4. See photo below. Mr. McConnel utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the CJP. The QC technician performed the required longitudinal wave utilizing a 1" diameter transducer for base metal soundness and a .63 x .75 rectangular transducer to perform the shear wave testing during the testing for weld soundness. The QAI observed that the QC technician marked several areas that contained rejectable indications on A1. The UT examination was in process during this shift and appeared to be in general compliance with contract documents. See Summary of Conversations.



Summary of Conversations:

From Item 4).

The QAI observed paint marks indicating rejectable areas in the weld and noted that no information was being recorded by the QC Steve McConnel. The QAI asked the QC if the indication information was being recorded in his log book. Mr. McConnel stated that he was laying everything out first and would come back to re-scan and

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gather the data. He stated to the QAI that in the past when QC recorded the information on the steel adjacent to the flaw (including the depth), the contractor would sometimes begin excavating repairs prior to the QC completing the testing.

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
