

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-015838**Date Inspected:** 27-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: D2, Face A
- 2). OBG Field Splice 1W/2W Weld ID: D1, Face A
- 3). OBG Field Splice 1W/2W Weld ID: D1 & D2, Face B
- 4). OBG Field Splice 3W/4W Weld ID: F1, Face B
- 5). OBG Field Splice 5W/6W Weld ID: D1 & D2, Face B
- 6). OBG Field Splice 4W/5W Weld ID: B1, Face B

- 1). OBG Field Splice 1W/2W Weld ID: D2, Face A

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) grinding to excavate (1) one Ultrasonic Testing (UT) reject area from the A face of the splice weld. The excavated area contained several UT rejectable indications that were in close proximity to one another. The QAI observed QC Inspector Tom Pasqualone performing periodic Magnetic Particle Testing (MT) to determine when the indication was completely removed. See photo below. The excavated area was determined to be clean and the final dimensions were measured by the QAI to be Length = 360mm, Width = 23mm and the Depth = 25mm. 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. Repair welding was not accomplished at this location during the QA Inspectors shift and the work at this location appeared to be in general compliance with contract documents.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

2). OBG Field Splice 1W/2W Weld ID: D1, Face A

The QAI periodically observed QC Inspector Tom Pasqualone performing Ultrasonic Testing (UT) from the A Face of OBG Field Splice 1W/2W Weld ID: D1. Prior to observing the testing the QAI observed QC Mr. Pasqualone performing the required calibration check of the GE USM 35 UT Instrument and the 70° Search Unit. The QAI observed Mr. Pasqualone perform a calibration check of the transducer index point, the transducer sound path angle, the horizontal sweep distance and the sensitivity. The calibration check appeared to be in compliance with contract documents and the QAI observed that Mr. Pasqualone set the reference level at 50% full screen height with a zero reference level sensitivity of 51dB. The QAI observed Mr. Pasqualone utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the splice weld. The QC technician performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was not completed from face A during the QA Inspectors shift and the work at this location appeared to be in general compliance with contract documents.

3). OBG Field Splice 1W/2W Weld ID: D1 & D2, Face B

The QAI periodically observed QC Inspector Jesse Cayabyab performing UT from the B Face of OBG Field Splice 1W/2W Weld ID: D1& D2. The QAI periodically observed that Mr. Cayabyab utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the splice weld. The QC technician performed the required longitudinal wave testing utilizing a 1" diameter transducer for base metal soundness and performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was completed from face A during the QA Inspectors shift and the work at this location appeared to be in general compliance with contract documents.

4). OBG Field Splice 3W/4W Weld ID: F1, Face B

The QAI periodically observed SE QC Inspector Steve McConnel performing UT of OBG Field Splice 3W/4W Weld ID: F1 from the B Face. Mr. McConnel utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the splice weld. The QC technician performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was completed from face B during this shift and the QAI observed that the QC inspector had marked several rejectable indications on the steel. See Summary of Conversations below.

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

The QAI periodically observed AB/F approved welder Mike Maday performing plasma cutting and grinding to prepare the outside groove for back welding. The work at this location was not completed during the QA Inspector's shift.

6). OBG Field Splice 4W/5W Weld ID: B1, Face B

The QAI periodically observed AB/F approved welding personnel Hua Quiang Hwang (ID 2930) performing the in process air carbon arc gouging of the B face to remove the backing bar and prepare the inside groove for backwelding. The work at this location was not completed during the QA Inspector's shift.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

From item 4). The QAI spoke with the QC Mr. McConnel and asked if he had performed the required longitudinal wave testing at this location. Mr. McConnel stated that he had previously performed UT of this weld from the opposite face (the A face) and he had performed the lamination scan at that time. Mr. McConnel also stated to the QAI that he had observed many of the same rejectable UT indications in this weld from the A face. The QC inspector also informed the QAI that next he would be moving to UT the OBG Field Splice 2W/3W Weld ID: B1, from Face B and that he had previously performed UT from the A face of weld B1 and found no rejectable indications.

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