

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-016037**Date Inspected:** 02-Aug-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: D1 & D2, Face A
- 2). OBG Field Splice 1W/2W Weld ID: D1 & D2, Face B
- 3). OBG Field Splice 4W/5W Weld ID: E1, Face A
- 4). OBG Field Splice 3W/4W Weld ID: E1 & E2, Face A
- 5). OBG Field Splice 5W/6W Weld ID: D1 & D2, Face B

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

The QAI periodically observed AB/F approved welders Xiao Jian Wan (ID 9677) and Jin Pei Wang (ID 7299) grinding to excavate Ultrasonic Testing (UT) reject areas from the A face of OBG Field Splice 1W/2W Weld ID: D1 & D2. The QAI observed AB/F approved welder Xiao Jian Wan (ID 9677) performing Shielded Metal Arc Welding (SMAW) in the 1G (flat) position on a test piece while QC Inspector Tom Pasqualone measured and verified 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 periodically observed QC Inspector Tom Pasqualone performing Magnetic Particle Testing (MT) of the repair excavations prior to welder Xiao Jian Wan performing welding at the repair locations. 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. See photo below. The work at this location was in process for the remainder of the QA Inspector's shift and appeared to be in general

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

compliance with contract documents.

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

The QAI periodically observed AB/F approved welders James Zhen (ID 6001) and Hua Quiang Hwang (ID 2930) grinding to excavate UT reject areas from the B face of OBG Field Splice 1W/2W Weld ID: D1 & D2. The QAI periodically observed QC Inspector Salvador Merino performing Magnetic Particle Testing (MT) of the repair excavations prior to welder James Zhen performing welding at the repair locations. 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 QAI periodically observed AB/F approved welders James Zhen (ID 6001) performing Shielded Metal Arc Welding (SMAW) in the 4G (overhead) position. The QAI observed QC Inspector Tom Pasqualone 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-D1.5-1000-Repair. The work at this location was in process for the remainder of the QA Inspector's shift and appeared to be in general compliance with contract documents.

3). OBG Field Splice 4W/5W Weld ID: E1, Face A

The QAI periodically observed AB/F approved welder Song Tao Huang (ID 3794) performing welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. See photo below. The QAI observed QC Inspector John Paglieri 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. 5-1040A. The welding at this location was not completed during the QA Inspectors shift and the work appeared to be in general compliance with contract documents. See Summary of Conversations below.

4). OBG Field Splice 3W/4W Weld ID: E1 & E2, Face A

The QAI performed verification visual & magnetic particle testing of 10% of the lengths of OBG Field Splice 3W/4W weld ID: E1 & E2, Face B. The QAI inspected 550mm of Weld E1 from Y = 4728mm to Y = 5278mm and 550mm of weld E2 from Y = 5278mm to Y = 5828mm. The representative samples of the welds verified by the QAI were found to be in general compliance with contract documents. See Report of Magnetic Particle Testing Form TL-6028 generated by the QAI on this date.

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

The QAI periodically observed AB/ approved welder Mike Maday (ID 3391) performing Plasma Cutting and grinding to prepare the groove for back welding. The work at this location was in process for the remainder of the QA Inspectors shift.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

From item 3).

The QAI asked of the QC Inspector which Welding Procedure Specification (WPS) was being used for the welding being performed at 4W/5W. The QC stated that it was ABF-WPS-D1.5-1040A. The QAI referenced a copy of the WPS that had been obtained from the SAS OBG QA Reference binder in the CT office trailer. The QAI noted that the WPS had FCAW-G in the Welding Process(es) section and was a revision 1. The WPS presented by the QC Inspector John Paglieri had SMAW in the Welding Process(es) section and was a revision 0. Otherwise the two WPS's appeared identical and were SMAW WPS's. The QAI later went into the QC Conex and referenced the QC Master List of WPS's and observed that the QC copy was also a Rev. 1 with the typographical error. The QAI then had a conversation with QC Leonard Cross and brought up the observed discrepancy. Mr. Cross stated that they would bring this to the attention of the AB/F QCM Mr. Jim Bowers for rectification.

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