

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019221**Date Inspected:** 10-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**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). Longitudinal Stiffener (ALS) Splices at OBG Field Splice 9E/10E (SMAW)
- 2). OBG West Line Deck Access Hole Transverse Stiffener Splices (SMAW)
- 3). OBG Field Splice 8W/9W Weld ID: E2, Face A (FCAW-G)
- 4). OBG Field Splice of East Line Deck Access Hole Insert Weld (QA verification)

- 1). Longitudinal Stiffener (ALS) Splices at OBG Field Splice 9E/10E (SMAW)

ALS-3

The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) at OBG Field Splice 9E/10E ALS-3, performing welding of fill and cover passes per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. The welding at this location was first from the South Face and when completed the QAI periodically observed back grinding and subsequent back welding of root, fill and cover passes from the North face. QC Inspector Fred Von Hoff was present periodically 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-D1.5-1012-3. The QAI observed that the fill pass welding was in process and the work at this location appeared to be in general compliance with contract documents.

ALS-5

The QAI periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) at OBG Field Splice 9E/10E ALS-5, performing welding of fill and cover passes per the Shielded Metal Arc Welding (SMAW) process in the

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3G (vertical) position. The welding at this location was first from the North Face and when completed the QAI periodically observed back grinding and subsequent back welding of root, fill and cover passes from the South face. The QAI randomly observed QC Inspector Fred Von Hoff performing Magnetic Particle Testing (MT) of the excavated area prior to back welding. See photos below. The QAI randomly 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. QC Inspector Fred Von Hoff was present periodically 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-D1.5-1012-3. The QAI observed that the fill pass welding was in process and the work at this location appeared to be in general compliance with contract documents.

2). OBG West Line Deck Access Hole Transverse Stiffener Splice (SMAW)

8W PP70.5 W5

The QAI periodically observed AB/F approved welder Jorge Lopez (ID 6149) performing back welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position on the West face of the OBG West Line Deck Access Hole Transverse Stiffener Splice at 8W PP70.5 W5. 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-D1.5-1010 rev. 1. The welding and flush grinding was completed and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

8W PP61.5 W5

The QAI periodically observed AB/F approved welder Jorge Lopez (ID 6149) performing butter pass welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position on the West face of the OBG West Line Deck Access Hole Transverse Stiffener Splice at 8W PP61.5 W5. 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-D1.5-1010 rev. 1. The welding and grinding of butter passes to correct excessive root gap was completed and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

3). OBG Field Splice 8W/9W Weld ID: E2, Face A (FCAW-G)

The QAI periodically observed AB/F approved welder Song Tao Huang (ID 3794) assisted by AB/F approved welder Jin Quan Huang (ID 9340) performing welding of fill and cover passes at the OBG Field Splice 8W/9W Weld ID: E2 per the Flux Cored Welding (FCAW-G) process in the 3G (vertical) position. The QAI observed QC Inspector Tony Sherwood was present periodically 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. The welding of fill passes was complete and cover pass welding was in process. The QAI observed that the work at this location appeared to be in general compliance with contract documents.

4). OBG Field Splice of East Line Deck Access Hole Insert Weld (QA verification)

5E PP29.5 E2

The QAI performed verification Visual Testing (VT) and Ultrasonic Testing (UT) of 20% of the length of the OBG Field Splice of the Deck Access Hole Insert Weld at 5E PP29.5 E2 from Y = 0mm to Y = 800mm. The OBG Field Splice visually verified by the QAI at this location appeared to be in general compliance with contract documents. The OBG Field Splice ultrasonically verified by the QAI at this location did not appear to be in general compliance with contract documents. For details, see Ultrasonic Testing Report Form TL-6027 issued by the QAI on this date. The QAI also issued an Incident Report on this date for the contractor testing and overlooking a Class A rejectable indication.

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Summary of Conversations:

The QAI in a conversation with QC Lead Inspector Bonafacio Daquinag Jr. was informed that the DAH insert weld at 5E-PP29.5-E2 was released to the QAI for verification testing.

Other onversations 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 Nina Choy (510) 385 5910, who represents the Office of Structural Materials for your project.

Inspected By: Madison,Bert

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer