

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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026574**Date Inspected:** 20-Oct-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**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:** OBG and Tower**Summary of Items Observed:**

At the start of the shift the Quality Assurance Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) personnel. The inspection was performed as noted below:

A). OBG W12/W13

FW Spencer (Piping Systems)

QAI: Doug Frey

1). The QAI, Doug Frey, was assigned to this designated work station to observe the Complete Joint Penetration (CJP) welding, the QC inspection and other related work of the field splice identified as 12W-13W-A5.

The welding was performed by Jorge Lopez ID-6149 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) process identified as ABF-WPS-D15-3040B-1, Rev.0. The QC inspector Fred Von Hoff performed the inspection and verified the welding parameters utilizing the WPS as a reference. No issues were noted by the QC inspector. The welding was performed at this work station was not completed during this shift on this date

2). The QAI also observed the continued Complete Joint Penetration (CJP) groove welding of the field splice identified as 12W-13W-E2. The welding was performed by Rory Hogan ID-3186 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) process as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-3, Rev. 0. The QC inspector William Sherwood performed the inspection and verifying the welding parameters utilizing the WPS as a reference. No issues were noted by the QC inspector. The welding was performed at this work station was not completed during this shift on this date.

3). Later in the shift, the QAI also observed the continued Complete Joint Penetration (CJP) groove welding of

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the field splice identified as 12W-13W-C2. The welding was performed by Jeremy Dolman ID-5042 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) process as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3042B-1, Rev. 0. The QC inspector William Sherwood performed the inspection and verifying the welding parameters utilizing the WPS as a reference. No issues were noted by the QC inspector. The welding was performed at this work station was not completed during this shift on this date.

4). The QAI, Doug Frey, also observed the continued welding and the QC inspection of the piping systems identified as the compressed air and domestic water. The CJP welding was performed by Curtis Jump utilizing the WPS identified as 1-12-1, Rev. 2 (1.12) which was also utilized by the QC inspector, Sal Merino, to monitor and verify the welding parameters.

B). OBG W12/W13

Electrical Cable Tray Supports

QAI: Joselito Lizardo

1). The QAI, Joselito Lizardo, was assigned to this designated work station to observe the continued Complete Joint Penetration (CJP) welding, the QC inspection and other related field work of the splice identified as 12W-13W-A5. The welding was performed by Jorge Lopez ID-6149 utilizing the Shielded Metal Arc Welding (SMAW) process identified as ABF-WPS-D15-1040A-1, Rev.0. The QC inspector Jesse Cayabyab was observed performing the inspection and verifying the welding parameters utilizing the WPS as a reference. No issues were noted by the QC inspector. The welding was performed at this work station was completed during this shift on this date.

2). The QAI observed the fillet welding and QC inspection of the cable tray supports located at the cross beam number 1. The welding was performed by Mike Jiminez ID-4671 utilizing the Shielded Metal Arc Welding (SMAW) process which was used by the QC inspector, Patrick Swain, as a reference during the welding operation. There was one (1) issue noted by the QAI in reference to the as built welding condition. For additional information regarding this issue see QALI Summary on page 2 and 3 of this report.

C). OBG 12W/13W

QAI: Craig Hager

1). The QAI observed the continued Complete Joint Penetration (CJP) groove welding of the field splice identified as 12W-13W-C2. The welding was performed by Rory Hogan ID-3186 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-3, Rev. 0. The QC inspector Fred Von Hoff performed the inspection and verifying the welding parameters utilizing the WPS as a reference. There was one issue noted by the QA inspector. For further details and results of this issue see QALI Summary on page 2 and 3 of this report.

Quality Assurance Lead Inspector (QALI) Summary

Later in the shift, this QA Lead Inspector (QALI) also observed the QAI's, Joselito Lizardo, Doug Frey and Craig Hager monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift this QA Lead

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Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures as described above. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications with no issues except as noted by Joselito Lizardo, Item B para. 2, (issue # 1) and by Craig Hager, Item C para. 1(issue # 2).

Issue # 1(connecting welds in a uncommon plane)-In regards to the electrical cable tray, this QALI informed QC Lead Inspector, Bonifacio Daquinag, Jr., that the QC Department needs to address and resolve this issue utilizing by submitting to the Department a Request for Information (RFI) documentation. Mr. Daquinag concurs with this QALI.

Issue # 2(welding parameters not in compliance with contract specifications)-QALI discussed this issue and instructed Mr. Hager to generate and submit an Incident Report (TL-15). Later notified William Levell, QA Supervisor, of this QALI action taken and Mr. Levell concurred with QALI action.

This report was generated upon the discussions with the QA Inspectors, random visual observations and review of the QAI field reports. For additional detailed information see each of the individual QAI submitted and approved Weld Inspection Reports (WIR).

Review of QA Tracking Plan

This QA Inspector continued the daily review of field inspection reports and update of the field document control tracking records regarding the Orthotropic Box Girders (OBG, Longitudinal and Transverse "A" Deck Stiffeners, Deck Access Holes and the Tower Shear plates. The QAI also updated the tracking records for the pipe welds and the pipe supports.

On this date the QAI commence the review of QA tracking documents for the OBG's identified as E3, E4 and E5.

Summary of Conversations:

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

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:	Reyes,Danny	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
