

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-026595
Date Inspected: 27-Oct-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 600
OSM Departure Time: 1630
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	

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). This Quality Assurance Lead Inspector (QALI) assigned to the QAI, Douglas Frey, to the following, but not limited to, work stations:

OBG W12/13W
Lifting Lug Holes (LLH)

1). The QAI, Doug Frey, observed the Complete Joint Penetration (CJP) groove welding of the side plate field splice identified as 12W-13W-E. The welding was performed by the welder Rory Hogan ID-3186 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) process as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3110-4, Rev. 0. The QC inspector, John Pagliero, performed the inspection and verified the welding parameters utilizing the WPS as a reference. No issues were noted by the QA inspector at the time of random observations. The welding performed at this work station was not completed during this shift on this date.

The QAI also observed the welder Jeremy Dolman ID-5042 preparing the set up of the Plasma Arc Cutting (PAC) equipment in preparation to remove the backing bar of the weld joint identified as 12W-13W-D. Due to mechanical and electrical issues with the Bug-O mortorized tractor, Mr. Dolman made alterations and converted the semi-automatic to a manual operation.

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2). Later in the shift the QAI observed the welder, Mr. Lopez, had mobilized to the Orthotropic Box Girder (OBG) W11 to set-up and to perform the CJP welding of the LLH identified as 11W-PP100-W4-W3 and W4. The field fit-up and welding was performed utilizing the WPS ABF-WPS-D15-1050A-CU and was also utilized by the QC inspector, Patrick Swain, to monitor the welding and verify the welding parameters.

B). This Quality Assurance Lead Inspector (QALI) assigned to the QAI, Craig Hager, to the following, but not limited to, work stations:

OBG 13E/14E

1). The QAI, Mr. Hager, observed the Submerged Arc (SAW) of the "A" deck designated as a Special Performance Critical Member (SPCM) weld joint identified as 13E-14E at weld segments A2.2 through A5. The welding was performed by the welding operator, James Zhen ID-6001, utilizing the WPS identified as ABF-WPS-D15-4042B-1, Rev. 0. The QC inspector, Fred Von Hoff, performed the in process weld inspection and verified the welding parameters utilizing the WPS, as noted, as a reference. The welding of the weld joint (A-Face) identified was not completed during this shift. * See the Quality Assurance, SPCM, Lead Inspector (QALI, SPCM) Summary below for additional project information.

C). This Quality Assurance Lead Inspector (QALI) assigned to the QAI, Art Peterson, to the following, but not limited to, work stations:

OBG E11/E12

1). The QAI, Art Peterson, observed the Ultrasonic Testing (UT) performed by Jesse Cayabyab on the deck plate field splice identified as 11E-12E segment A5. At the conclusion of the testing one rejectable discontinuity was noted by the QC technician. The excavation and repair welding of the rejectable discontinuity commenced immediately after the testing was completed. This stage of the repair cycle was performed by Fred Kaddu ID-2188 the utilizing the manual Carbon Arc Gouging (CAG) method and the Shielded Metal Arc Welding (SMAW) process as per the WPS identified as ABF-WPS-D15-1000 Repair, Rev. 2. The Magnetic Particle Testing (MPT) of the back gouged surface, the monitoring of the welding and the verification of the welding parameters were performed by the QC inspector, Patrick Swain.

Quality Assurance Lead Inspector (QALI) Summary

Later in the shift, this QA Lead Inspector (QALI) also observed the QA Inspector's Doug Frey, Craig Hager and Art Peterson 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 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 noted.

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For additional detailed information see the individual submitted and approved QAI Weld Inspection Reports (WIR).

*Prior to the start of the shift, this QA SPCM Lead Inspector perform an observation of the baking of the flux in the oven identified as Phoenix Dry Rod Electrode Stabilizing Oven, Type 750 HT and manufactured by Phoenix Products Co., Inc. This QAI verified the temperature of 322 degrees Celsius at approximately 0620.

This report was generated upon the discussions with the QA Inspectors, random visual observations and review of the QAI field reports.

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.

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
