

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 #: 99.28**WELDING INSPECTION REPORT**

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026514
Date Inspected: 13-Oct-2011

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

OSM Arrival Time: 700
OSM Departure Time: 1730
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

Piping System (FW Spencer)
Lifting Lug Holes
QAI: Doug Frey

1). The QAI, Doug Frey, was assigned to this designated work station to observe the Complete Joint Penetration (CJP) welding and the QC inspection of the field splice identified as 12W-13W-D1 and D2. The welding was performed by Rory Hogan ID-3186 utilizing the Sub-Merged Arc Welding (SAW) process as per the Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1, Rev. 0 which was utilized by the QC Inspector, William Sherwood, as a reference to monitor the welding, verify the welding parameters, the minimum preheat and maximum interpass temperatures.

2). The QAI, Doug Frey, also observed the 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, Steve Jensen, to monitor and verify the welding parameters.

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B). OBG E12/E13

QAI: William Clifford

1). The QAI, William Clifford, was assigned to this designated work station to observe the Complete Joint Penetration (CJP) welding and the QC inspection of the field splice identified as 12E-13E-D2. The welding was performed by Jin Pei Wang ID-7299 utilizing the Sub-Merged Arc Welding (SAW) as per the Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1, Rev. 0 which was utilized by the QC Inspector, Patrick Swain, as a reference to monitor the welding, verify the welding parameters, the minimum preheat and maximum interpass temperatures.

2). The QAI also observed the Complete Joint Penetration (CJP) groove welding of the field splice identified as 12E-13E-D1 and D3. The welding was performed by Wai Kitlai ID-2953 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3040A-1, Rev. 0 which was utilized by the QC Inspector, Patrick Swain, as a reference to monitor the welding, verify the welding parameters, the minimum preheat and maximum interpass temperatures.

3). The QAI also observed the Complete Joint Penetration (CJP) groove welding of the field splice identified as 12E-13E-C2. The welding was performed by James Zhen ID-6001 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3042A-1, Rev. 0 which was utilized by the QC Inspector, Patrick Swain, as a reference to monitor the welding, verify the welding parameters, the minimum preheat and maximum interpass temperatures.

C). Deck Access Hole (DAH)

Lifting Lug Holes

Backing Bar (E13/E14)

QAI: Joselito Lizardo

1). The QAI, Joselito Lizardo, was assigned to this designated work station and observe the QC inspection and testing of the Deck Access Hole (DAH) identified as WN: 8E-PP70.5-E5-NE. At the conclusion of the Visual Testing (VT) and Ultrasonic Testing (UT) no rejectable discontinuities were noted at the time of the inspection and testing. The inspection and testing was performed by John Pagliero.

2). The QAI was also assigned to this designated work station to observe the CJP weld profile grinding and inspection of the Lifting Lug Holes (LLH) located on the west Orthotropic Box Girders (OBG) identified as WN: 10W-PP92-W4-W2 and W4. The weld profile grinding was performed by Mike Jiminez ID-4671. The QC inspection was performed by Bernie Docena. At conclusion of the grinding the welder commence the backing gouging of the LLH identified as WN: 10W-PP92-W4-W3 and Mr. Docena performed the VT and MPT prior to the welding. The QAI verified the VT and MPT and no rejectable indications were noted.

3). Mr. Lizardo also observed the CJP welding and QC inspection performed by Jorge Lopez ID-6149 on the edge plate identified as 12E-13E-F. The welding was performed by Jorge Lopez -6149 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) as per the WPS identified as ABF-WPS-D15-3040B-3, Rev. 0. The WPS was also utilized by the QC inspector as a reference to monitor the welding and to verify the welding parameters.

4). Later in the shift, at the request of the QC Lead Inspector, Bonifacio Daquinag, Jr., Mr. Lizardo verified the planar alignment of the side plate field splice identified as 12E-13E-E1 and E2. There were three (3) areas found by QC that did not comply with the contract specifications. At the conclusion of the inspection the QAI concurred with QC. For detailed information in regards to this issue see Mr. Lizardo's Weld Inspection Report, TL-6031, generated on this date.

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D). Lifting Lug Hole (LLH)

OBG 12E-13E-F

QAI: Craig Hager

1).The QAI was assigned to designated work station WN: 11E-PP100-E3 W1 and W2 to observed the excavations, repair welding and inspection of the Lifting Lug Holes (LLH) located on the west Orthotropic Box Girders (OBG). The MPT was performed by Fred Von Hoff. Welding has not commenced on this shift.

2).The QAI was also assigned to observe the work performed on the edge plate field splice identified as 12E-13E-F. The work performed at this time was the field fit-up. At the time of this observation there appeared to be a gap between the backing bar and "B" side of the joint. The backing bar was brought into intimate contact with base metal resolving this issue. For reference see Joselito Lizardo's WIR TL-6031 generated on this date.

QAI Lead Inspector Summary

Later in the shift, this QA Lead Inspector (QALI) also observed the QAI's, Joselito Lizardo, Doug Frey, Craig Hager and William Clifford 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 on this date except as noted by Mr. Lizardo item C, paragraph 4. The welding performed at the various work areas were not completed during this shift.

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

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

The digital photographs on page 4 of this report illustrate some of the activities observed during this shift.

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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