

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-027108
Date Inspected: 25-Jan-2012

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	

Summary of Items Observed:

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

A). This Quality Assurance Lead Inspector (QALI) assigned the QA Inspectors to the following, but not limited to the work station(s) listed, to observe the welding and the QC inspection of the following:

Doug Frey-OBG field splice E13/E14 (Observation of repair welding operation and QC inspection of the bottom plate splice identified as "D2"), OBG E12 and E13 (Observation of welding, repair welding and QC inspection of lifting lug holes) and QA NDE verification.

Ken Riley-OBG W13 (Observation of welding and QC inspection of lifting lug holes), OBG field splices W12/W13 & W13/W14 (Observation of welding and QC inspection of deck plate "A5" and "E1 & E2" accordingly) and Submittal reviews.

Rick Bettencourt-Skway (Observation of the welding of associated components of the emergency gates at the Bike Path panels). Ref: CCO-179.

NOTE: See QA daily Weld Inspection Reports (WIR) and NDE reports for additional information and details.

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Quality Assurance Lead Inspector (QALI) Summary

This QA Lead Inspector (QALI) observed the QA Inspector's Douglas Frey, Ken Riley and Rick Bettencourt 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 for compliance with the contract specifications. 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. 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 exception of emergency gates for the Bike Path panels. An Non-Conformance Report (NCR) was generated regards to welding not in compliance with contract specifications. For additional detailed information see QAI Rick Bettencourt's Weld Inspection Report (WIR) for this date.

This QALI also verified the following in progress work:

FW Spencer/Pipe Welding of Utility Systems

This QALI observed the fit-up and welding of the 1" and 2" weld-o-lets to the 2.5" and 4" located at designated areas on the utility service systems. The welding was performed by FW Spencer personnel Damian LLanos, identification # 6645, utilizing the WPS identified as 1-12-1 and this WPS was also utilized as a reference by the QC Inspector, Steve Jensen. The average amperage reading was noted as 85 amps. The work performed on this date was located at the west OBG W4 through W6 along grid line W2 between PP46 and PP50. Later in the shift, Mr. Jensen, requested QA verification of the following pipe welds:

WATER SYSTEM	COMPRESSED AIR SYSTEM
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1/DW1/46/NW	1/CA/46/NW
1/DW1/48/NW	1/CA/48/NW
1/DW1/50/NW	1/CA/50/NW

QA Summary

The QC inspection and welding performed on the pipe welding was observed at random intervals by this QA Inspector. The QAI observations included verification of the welding parameters, the minimum preheat and the maximum interpass temperatures for compliance with the contract specifications. This QAI 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. The random observations, verifications of the welding and QC inspection, WPS's, consumables, welding parameters, preheat and interpass temperatures appeared to comply with the contract specifications.

This QALI also assisted SMR Bahjat Dagher and Cal Trans Structures Representative Thanh Le with performing a survey, for straightness, at the # 3 Crossbeam north and south bolted field splice connections.

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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).

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.

Issue

Upon further review of the repairs performed on the OBG field splice identified as 12W-13W-D2 it was noted by this QALI that one (1) repair was performed without the Engineer's approval. This QALI informed Structural Materials Representative (SMR) Bahjat Dagher that this QALI would generate an incident report in regards to this issue. Mr. Bahjat concurred with addressing this issue through an incident report. Additional information: the Y dimension =5900 mm.

QALI Note:

The contractor has generated a REQUEST for WELD REPAIR APPROVAL identified as WWR #: 210201003 regarding this issue. The date of request is noted as January 25, 2012. The repair was excavated and welded on January 23, 2012.

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
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Reviewed By:	Levell,Bill	QA Reviewer
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