

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-026550
Date Inspected: 21-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: 1530
Location: Jobsite

CWI Name: As noted below
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: Yes No N/A
Approved WPS: Yes No N/A
Delayed / Cancelled: Yes No N/A
Component: SAS OBG

Bridge No: 34-0006**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

- 7E PP49 Pipe Welding (Exterior)
- 10W PP88 W4 Lifting Lug Holes VT, MT and UT
- 12W 13W Side Plate E2 Welding (Interior)
- 12W 13W Side Plate C2 Welding (Interior)
- 10W PP92 W4 Lifting Lug holes VT, MT and UT

- 7E PP49 Pipe Welding (Exterior)

The QA inspector observed F.W. Spencer welder Curtis Jump ID# 7326 performing Shielded Metal Arc Welding (SMAW) in the 2G horizontal position on 4" domestic water pipe and 2.5" compressed air pipe located at 7E PP49 weld #5/2.5/49/NE and weld #5/4/49/NE. The QA inspector verified the fit up of the joints and found it to be satisfactory. The QA inspector observed the QC inspector identified as Sal Moreno monitoring the welding to ensure the welding parameters were in compliance pertaining to WPS-1-12-1 Revision 2 (1.12). The welder was observed implementing 6010 electrodes in the root pass with the balance using 7018 electrodes. The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work appears to be in general conformance with the contract documents.

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2. 10W PP88 W4 Lifting Lug Holes VT, MT and UT

The QA Inspector performed a Magnetic Particle Test (MT) on Lifting Lug Holes #3 and 4 at 10W PP88 W4 on the exterior of the OBG. The QA Inspector utilized the MT procedure SE-MT-D1.5-CT-100 Rev. 4 to test 10% of the weld to verify the weld and testing by QC meet the requirements of the contract documents. The QA Inspector noted that the work appeared to be free of defects and was found to be acceptable and in general conformance with the contract documents. Upon completion of the MT, the QA Inspector performed Ultrasonic Testing utilizing a G.E./Krautkramer USN 60. The QA Inspector also utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination. Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

3. 12W 13W Side Plate E2 Welding (Interior)

The QA inspector randomly observed ABF welding operator Rory Hogan ID#3186 performing Flux Core Arc Welding with gas (FCAW-G) utilizing a “Bug-O” motorized rail system with a magnetic base attached in the 3G vertical position on side plate E2, at 12W 13W of the OBG. The QA inspector observed the QC inspector identified as Tony Sherwood monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3042B-1. The parameters were recorded as (A=280/V=23.7/TS=250/HI=1.53). The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

4. 12W 13W Side Plate C2 Welding (Interior)

The QA inspector randomly observed ABF welding operator Jeremy Dolman ID#5042 performing Flux Core Arc Welding with gas (FCAW-G) in the 3G vertical position on side plate C2, at 12W 13W of the OBG. The QA inspector observed the QC inspector identified as Tony Sherwood monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3042B-1. The parameters were recorded as (A=235/V=23.5/TS=255/HI=1.29). The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

5. 10W PP92 W4 Lifting Lug holes VT, MT and UT

The QA Inspector performed a Magnetic Particle Test (MT) on Lifting Lug Holes #1- 4 at 10W PP92 W4 on the exterior of the OBG. The QA Inspector utilized the MT procedure SE-MT-D1.5-CT-100 Rev. 4 to test 10% of the weld to verify the weld and testing by QC meet the requirements of the contract documents. The QA Inspector noted that the work appeared to be free of defects and was found to be acceptable and in general conformance with the contract documents. Upon completion of the MT, the QA Inspector performed Ultrasonic Testing utilizing a G. E./Krautkramer USN 60. The QA Inspector also utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev. 4 during the examination. Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

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Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. No issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

At the beginning the shift the QA inspector met with QC inspector William Sherwood and discussed the welders assignments and locations for the shift to include pending issues, ongoing work and required testing.



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:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
