

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-027851
Date Inspected: 27-Jun-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: 1930
Location: Job Site

| | | | | |
|------------------------------------|----------------|----------------------------------|------------|----|
| CWI Name: | As noted 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: | SAS OBG | |

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:

5E PP29.5 E2-DAH (Exterior)

This QA Inspector randomly observed the SMAW process in the 4G overhead position on the Deck Access Hole (DAH) located at 5E PP29.5 E2-DAH on the exterior of the OBG. ABF/JV qualified welder Roby Smith #4245 was observed cleaning the weld between passes utilizing a small disc grinder and compressed air to blend the start/stop edges for a smooth transition. The welder was observed utilizing E7018-H4R electrodes and this QA Inspector verified that the electrodes were recently obtained from a baking oven. QC Inspector Fred Michels was observed measuring the inter-pass temperatures by employing an infra-red temperature gun as well as monitoring the welding and the parameters. It was noted that the welder was drawing amperage of 127 utilizing 3.2mm electrodes. The welder was observed running multiple pass stringers while adhering to ABF-WPS-D1. 5-1010-Revision 1. On a subsequent observation, the welder was observed continuing work on the B-U2a Complete penetration Joint (CJP) and was employing the same routine to clean the passes. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appeared to be in general conformance with the contract specifications.

12E-E2.1 (Exterior)

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This QA Inspector observed QC Inspector Salvador Merino verify prior to the start of the fillet weld operation, that the minimum preheat temperature as per the approved WPS was established; and afterward's verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with ABF-WPS-D1.5-F3200-Revision 2. This QA Inspector observed ABF welder Richard Garcia #5892 performing the seal pass weld operation per the Flux Core Arc Welding (FCAW) process in the (1G) flat position on the (top side) of the Deck Plate Corner Drop-in Section on Segment 12E along Grid Line E2.1 from y+100mm to y+12500mm. The welder was observed cleaning the start/stop edges of the work with a small disc grinder and compressed air between passes as the QC Inspector measured the inter-pass temperatures. The welding parameters and surface temperatures were verified by the QC inspector's utilizing a Fluke 337 clamp meter to measure the electrical welding parameters and Tempilstik Heat Indicators for verifying the preheat and inter-pass temperatures. This QA Inspector made subsequent observations to monitor quality and noted that the production welding was in progress and appeared to be in general conformance with the contract documents.

QA NDT

This QA Inspector performed MT testing on the welds listed below. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

6W PP46.5-LSE/LSW
13E PP124-E2.2-BF1
5W PP36.5 W2-DAH
8W PP70.5 W2-DAH
13E PP124.5-BW1

This QA Inspector performed a UT inspection on approximately 10% of the welds on the DAH at 12E PP109.5 E5 on the interior of the OBG. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

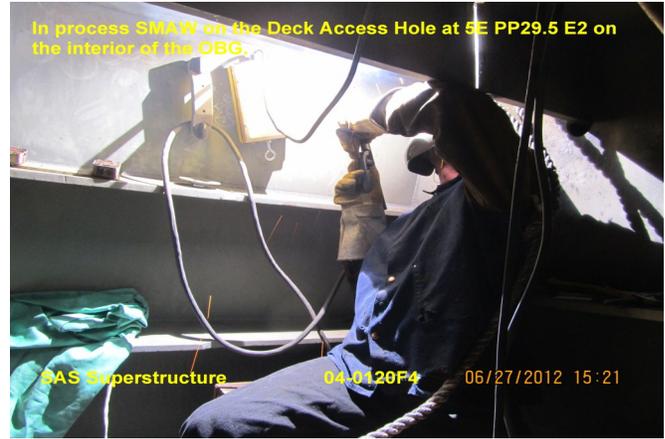
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13E PP124-E2.2-BF1
5W PP36.5 W2-DAH
8W PP70.5 W2-DAH
13E PP124.5-BW1
12W PP109.5 W2-DAH

Summary of Conversations:

Conversations were relevant to welding performed and information unique with each location.

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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