

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-027406**Date Inspected:** 04-Apr-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**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:** Tower**Summary of Items Observed:**

Quality Assurance (QA) Inspector Danny Smith arrived at the new San Francisco Oakland Bay Bridge to observe, document and perform a general visual verification and NDT. Upon arrival as noted above the QA Inspector observed Quality Control (QC) on site performing welding inspection.

FW Spencer-Mechanical Piping:

The QA Inspector observed the following: At location Panel Point PP104, weld I.D. numbers 37-2.5-105-SW the QA randomly observed FW Spencer qualified welder Damian Llanos perform Complete Joint Penetration (CJP) 1G flat position using Shielded Metal Arc Welding (SMAW) on the root pass and cover passes on the 2" diameter domestic water to 2" diameter domestic water lines respectively and 1" weld-o-let to 2" compressed air. The water line systems being welded are field welds along the OBG. The welder was noted welding the root pass with 3/32" diameter E6010 electrode and followed by fill pass to cover pass using 3/32" diameter E7018H4R electrode implementing Caltrans approved procedure FW Spencer WPS 1-12-1. The welder was noted preheating and removing the moisture of the joint using a portable torch prior welding. During welding, ABF QC Steve Jensen was noted monitoring the parameters of the welder with measured working current of 94 amperes for E6010 electrode. The QA Inspector noted the welding at this location to be complete.

Later in the shift the QA Inspector observed the following: At location Panel Point PP104, weld I.D. numbers 36-4-105-SW the QA randomly observed FW Spencer qualified welder Damian Llanos perform Complete Joint Penetration (CJP) 1G flat position using Shielded Metal Arc Welding (SMAW) on the root pass and cover passes on the 4" diameter domestic water to 4" diameter domestic water lines respectively. ABF QC Steve Jensen was noted monitoring the parameters of the welder with measured working current of 94 amperes for E6010 electrode.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

The QA Inspector noted the welding at this location to be complete.

Longitudinal Stiffener plate:

The QA Inspector at random intervals, observed ABF welder Eric Sparks (ID 3040) perform the Shielded Metal Arc Welding (SMAW) process in the 3G vertical position on face "B" of the longitudinal stiffener plate 58W-PP61.5-W2-LSW on the interior of the OBG. The welder was observed utilizing 3.2mm E7018-H4R electrodes obtained from a baking oven and drawing amperage of 120. QC Inspector was on hand to monitor the welding, parameters and measure the inter-pass temperatures as they apply to ABF-WPS-D1.5-101231. On subsequent observations the welder was observed cleaning the work between passes by employing a small disc grinder, brushes and compressed air. The QA Inspector noted the welding at this location not completed at this time on this date.

The QA Inspector at random intervals, observed ABF welder Mike Jiminez (ID 4671) perform the Shielded Metal Arc Welding (SMAW) process in the 3G vertical position on face "B" of the longitudinal stiffener plate 58W-PP61.5-W2-LSE on the interior of the OBG. The welder was observed utilizing 3.2mm E7018-H4R electrodes obtained from a baking oven and drawing amperage of 128. QC Inspector was on hand to monitor the welding, parameters and measure the inter-pass temperatures as they apply to ABF-WPS-D1.5-1012-3. On subsequent observations the welder was observed cleaning the work between passes by employing a small disc grinder, brushes and compressed air. The QA Inspector noted the welding at this location not completed at this time on this date.

The QA Inspector at random intervals, observed ABF welder Tod Jackson (ID 4639) perform the Shielded Metal Arc Welding (SMAW) process in the 3G vertical position on face "B" of the longitudinal stiffener plate 8E-PP70.5-E5-LSE on the interior of the OBG. The welder was observed utilizing 3.2mm E7018-H4R electrodes obtained from a baking oven and drawing amperage of 135. QC Inspector was on hand to monitor the welding, parameters and measure the inter-pass temperatures as they apply to ABF-WPS-D1.5-1012-3. On subsequent observations the welder was observed cleaning the work between passes by employing a small disc grinder, brushes and compressed air. The QA Inspector observed the QC Inspector perform Magnetic Particle Test (MT) at this location on the back gouge prior to any welding of the back fill. The QC Inspector relayed to the QA Inspector no relevant indications were found at this location on this date. The QA Inspector noted the welding at this location not completed at this time on this date.

Interior Deck Access Holes:

The QA Inspector at random intervals, observed ABF welder Steve Davis (ID 7889) perform the Shielded Metal Arc Welding (SMAW) process in the 4G overhead position on face "B" of the interior deck access hole at DAH-6W-PP46.5-W2-NW on the interior of the OBG. The welder was observed utilizing 3.2mm E7018-H4R electrodes obtained from a baking oven and drawing amperage of 144. QC Inspector was on hand to monitor the welding, parameters and measure the inter-pass temperatures as they apply to ABF-WPS-D1.5-1010-1. On subsequent observations the welder was observed cleaning the work between passes by employing a small disc grinder, brushes and compressed air. The QA Inspector observed the QC Inspector perform Magnetic Particle Test (MT) at this location on the back gouge prior to any welding of the back fill. The QC Inspector relayed to the QA Inspector no relevant indications were found at this location on this date. The QA Inspector noted the welding at this location not completed at this time on this date.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Work performed appears to be in general compliance with contract documents.



Summary of Conversations:

Conversations included welding work being performed on this date.

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: Smith,Danny

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer