

**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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027320**Date Inspected:** 15-Mar-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** On Site**CWI Name:** Bernie Docena / Fred Von Hoff**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 Diaphragm**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Art Peterson arrived on site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor the welding operations performed by American Bridge Fluor (ABF) welding personnel. The following observations were:

Tower: 9 M Level

This QA Inspector randomly observed ABF welder Wai Kit Lai (Welder ID 2953) performing the fillet weld operation per the Shielded Metal Arc Welding (SMAW) process in the (4F) overhead position connecting the perimeter channel to the bottom side of the diaphragm plate at the 9M level of the Tower.

This QA Inspector observed QC Inspector Bernie Docena verify that the preheat temperature was at the minimum of 60 Degrees C and that the welding parameters (Amps, Volts, and Travel Speed) were in accordance with WPS F1200A.

The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

Tower: 9M Level

This QA Inspector randomly observed ABF welder Jin Pei Wang (Welder ID 7299) performing the fillet weld operation per the Shielded Metal Arc Welding (SMAW) process in the (4F) overhead position connecting the perimeter channel to the bottom side of the diaphragm plate at the 9M level of the Tower.

---

---

# WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

---

This QA Inspector observed QC Inspector Bernie Docena verify that the preheat temperature was at the minimum of 60 Degrees C and that the welding parameters (Amps, Volts, and Travel Speed) were in accordance with WPS F1200A.

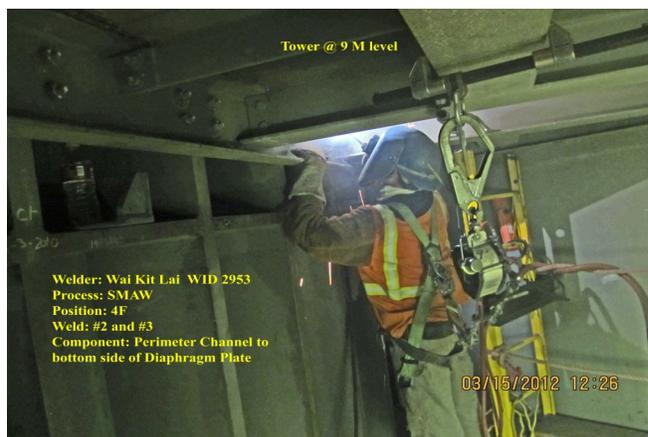
The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

Tower: 13 M Level

This QA Inspector randomly observed ABF welder Dan Ieraci (Welder ID 3232) preparing to perform the partial-joint penetration (PJP) T-joint groove weld operation per the Submerged Arc Welding (SAW) process in the (1G) flat position connecting the north diaphragm plate to the north tower shaft skin plate. The weld joint was identified as WJ#127 Y 4700. The thickness of the tower shaft skin plate is 60 mm and the diaphragm plate is 45 mm.

This QA Inspector observed QC Inspector Fred Von Hoff verify that the preheat temperature was at the minimum of 110 Degrees C and once the welding commences the welding parameters (Amps, Volts, and Travel Speed) would be in accordance with WPS 4062-1.

The preparation to perform the SAW welding at this location was still in process and appeared to be in general compliance with the approved WPS and the contract specifications.



## Summary of Conversations:

Only general conversations between this QA and QC 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:** Peterson, Art

Quality Assurance Inspector

---

**Reviewed By:** Levell, Bill

QA Reviewer