

**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-027517**Date Inspected:** 20-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:** 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:

Electro Slag Weld (ESW) Section: The QC Documents observed being used by this QA Inspector for the following weld joints appeared to be designated as ESW and require Post Weld Heat Treatment (PWHT) prior to final Non Destructive Testing (NDT).

ESW Weld #N-043 Joint P Face B

This QA Inspector randomly observed ABF welder Richard Garcia continuing excavation operations of ultrasonic rejectable indications on Weld #N-043 Joint P on Face "B". The welder was observed utilizing Carbon Air Arc as well as small disc grinders and compressed air to remove material to clean sound metal. Upon completion of the excavation, QC Inspector Jesse Cayabyab measured and recorded the dimensions of the excavation as follows; y+0: Length 660mm, 67mm in width and 52mm deep. (See photo below). This QA Inspector observed Mr. Cayabyab perform Magnetic particle (MT) Inspection of Joint P from y+660mm to 760mm and noted several surface indications were visible.

Splice and Bearing Stiffener #007

The QA Inspector made random observations of the in process Shielded Metal Arc Welding (SMAW) in the

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

3G Vertical position on the root pass of Splice and Bearing Stiffener #007. The welder was observed utilizing 3.2mm E7018-H4R Electrodes which were procured from a baking oven and drew amperage of 125. Between passes the welder utilized a small disc wire wheel and small disc grinder to clean the start/stop edges of the work for a smooth transition. QC Inspector William Sherwood was present to monitor the welding and the parameters as they pertain to ABF-WPS-D1.5-1160. On a subsequent observation, the welder was observed continuing the root pass and upon completion, QC Inspector William Sherwood performed an MT inspection of the root pass and found it to be acceptable and free of indications. This QA Inspector performed MT testing on the root pass of the Splice and Bearing Stiffener #007. This QA Inspector performed 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. On a subsequent observation, the welder was observed in the ongoing SMAW process and appeared to be in general conformance with the contract specifications.

### ESW Weld #W-042 Joint M Face A

This QA Inspector observed at random intervals, QC Inspector Jesse Cayabyab performing MT testing on Weld #W-042 Joint M face A from 150mm to 2150mm. It was noted that Mr. Cayabyab found no rejectable indications and found the testing to be acceptable. This QA Inspector performed MT testing on #W-042 Joint M Face A. 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. This QA Inspector observed at random intervals, QC Inspector Jesse Cayabyab performing MT testing on Weld #S-042 Joint L face A from 150mm to 2150mm. It was noted that Mr. Cayabyab found no rejectable indications and found the testing to be acceptable. This QA Inspector performed MT testing on #W-042 Joint M Face A. This QA Inspector performed 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.

### Summary of Conversations:

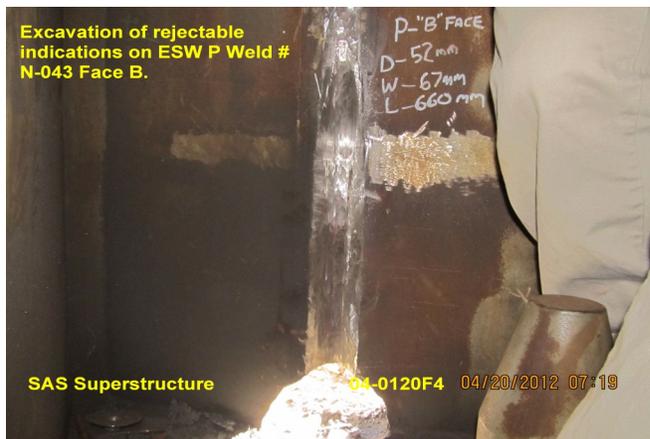
There were general conversations with Quality Control Inspector, Jesse Cayabyab at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---



## 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