

**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 #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008591**Date Inspected:** 18-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Japan Steel Works**Location:** Muroran, Japan

<b>CWI Name:</b>	Chung Fu Kuan		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

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

**Bridge No:** 34-0006**Component:** Tower, Jacking, and Deviation Saddles**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 and the Foundry at Japan Steel Works.

**Fabrication Shop #4:**

Weld Operation in-process on Middle Stiffeners of Saddle: Tower Saddle Segment T1-3

The QA Inspector observed the partial-joint penetration (PJP) tee-joint groove weld operation on the middle stiffener plates to the rib (cast section) and the trough (cast section) of tower saddle T1-3. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to and during the PJP groove weld operation that the minimum preheat temperature of 150 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. T. Watanabe (08-5169) on stiffener plate no. 9ST-19, Mr. M. Kato (08-5018) on stiffener plate no. 9ST-20, Mr. K. Kobayashi (08-5023) on stiffener plate no. 9ST-22, and Mr. K. Sadakawa (06-2929) on stiffener plate no. 9ST-24 were in compliance with WPS SJ-3012-8-1 per the SMAW process in the (2G) horizontal position using (4.0) mm diameter LB52 electrode and WPS SJ-3012-8-2 per the FCAW-G process in the (2G) horizontal position using (1.6) mm diameter TM55 electrode. The QA Inspector observed that the PJP groove weld operation was in-process at the end of the QA Inspectors' shift.

Grinding Operation in-process on Saddle: West Deviation Saddle Segment W2-W3

The QA Inspector observed JSW personnel performing the grinding operation on the cover passes of the partial-joint penetration (PJP) groove welds on the stem plate (built-up section) to stem (cast section) of west deviation saddle segment W2-W3. The JSW personnel were grinding on the cover passes of the PJP groove welds

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

to a visual acceptable profile prior to Quality Control (QC) Inspector Mr. Chung Fu Kuan performing a visual inspection for acceptance in accordance with the approved shop drawings and AWS D1.5-2002 Section 3.6. The QA Inspector observed that the grinding operation was in process on west deviation saddle segment W2-W3 at the end of the QA Inspectors' shift.

ABF-RFI-001811R00: Modified MC Shapes for East Saddle Rocker Bearing Plates E2-E1 and E2-W1

The QA Inspector observed (1) JSW personnel Mr. K. Koyanagi (08-5144) clamping the rocker bearing plate down onto the fixture in preparation to survey the rocker bearing plate and make adjustments as necessary and also to prepare the rocker bearing plate for the fillet weld operation around the (8) each (70) mm radius copes on the lower flange of the modified miscellaneous channel (13 \* 31.8) to (100) mm thick east saddle rocker bearing plate E2-W1. The (70) mm radius copes were previously cut into the upper and lower flanges of the miscellaneous channel as per ABF-RFI-001811R00. The QA Inspector also observed (1) Certified Weld Inspector (CWI) Mr. Chung Fu Kuan present during the preparation of the fillet weld operation on the modified miscellaneous channel. The QA Inspector observed that the total time spent on this date was (8) hours for (1) JSW personnel and (1) CWI to perform the aforementioned work and inspection which was still in-process at the end of the QA Inspectors' shift.

Foundry:

Grinding Operation in-process on Saddle: East Saddle E2-E1 (cast saddle)

The QA Inspector observed (2) JSW personnel performing the grinding operation on the major excavation and minor excavation repair welds previously performed on east saddle E2-E1. The purpose of the JSW personnel performing the grinding operation is to grind the repair welds to an acceptable profile in accordance with ASTM A802 surface quality category (J) - (metal removal marks- welds) to a visual quality level (3). The QA Inspector observed that the grinding operation was in-process at the end of the QA Inspectors' shift.

Defect Removal Operation in-process on Cast Saddle: West Jacking Saddle

The QA Inspector observed that JSW personnel started the the air-carbon-arc gouging operation on one side of the west jacking saddle to remove NDT rejectable indications located on the exterior of the trough section, stem section, rib sections, and base plate at various locations along its length. The rejectable indications were previously marked up by the Nikko Inspection Services (NIS) QC NDT Personnel from the liquid penetrant test (PT), magnetic particle test (MPT), and the ultrasonic test (UT) inspection performed on the exterior of the trough section, stem section, rib sections, and base plate of the west jacking saddle. The QA Inspector observed that the air-carbon-arc gouging operation was in-process on one side of the west jacking saddle at the end of the QA Inspectors' shift.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with the applicable contract specifications.

### **Summary of Conversations:**

No significant conversations were reported 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.

---

---

# WELDING INSPECTION REPORT

*( Continued Page 3 of 3 )*

---

---

---

<b>Inspected By:</b>	Peterson, Art	Quality Assurance Inspector
----------------------	---------------	-----------------------------

---

<b>Reviewed By:</b>	Guest, Kittric	QA Reviewer
---------------------	----------------	-------------

---