

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002219**Date Inspected:** 16-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Japan Steel Works, Ltd.**Location:** Muroran, Japan**CWI Name:** Rory O'Kane**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, Jacking and Deviation Saddles**Summary of Items Observed:**

On this date OSM Quality Assurance Representative Daniel L. Reyes observed the casting of the cable saddles, welding of the structural steel components and inspection relative to this project. The following was observed:

**Foundry Shop**

At approximately 0900 hours Nikki Inspection Service (NIS) personnel Koji Kanazawa informed this QA inspector that the non-destructive testing scheduled on this date has been suspended. Mr. Koji expressed that the West Deviation Saddle identified as W2E2 was rotated on the B-shift but the surfaces marked for grinding did not occur. According to Mr. Koji this work will be re-scheduled for Thursday, April 17, 2008.

On this date this QA inspector received and reviewed the following approved Japan Steel Works, Ltd. drawings identified as J694942-3 through J694942-5, J694943-3 through J694942-5, J694942-3 through J694942-3 through J694942-5, J694949 and J694950.

**Procedure Qualification Test Plate-SW-7-1**

At the start of the shift this QA inspector assisted QA Wai Pau during the observation of the welding and inspection of the Procedure Qualification Record (PQR) test plate identified as SW-7-1. The welding was performed by Japan Steel Works, Ltd. welding personnel Kouzou Kobayashi ID 08-5023 with the 50 millimeter thick test plate placed in the flat (1G) position. Mr. Kobayashi utilized the Shielded Metal Arc Welding (SMAW) as per the Welding Procedure Specification (WPS) SJ-2942 WP-10 which was also used by the Quality Control (QC) Inspector Rory O'Kane as a reference. The consumable utilized during the welding of the test plate was identified as a Hobart Electrode (Hoballoy) LB-52A with a diameter size of 4.0 millimeters which appears to

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comply with the AWS A5.1 specification and the E7016 classification.

Prior to the welding of the test plate, the QC inspector Mr. O'Kane verified the minimum preheat temperature of 110 degrees Celsius and at the conclusion of verifying the surface temperature the welder Mr. Kouzou commenced the welding of the root pass. At this time this QA inspector observed the QC inspector verifying the amperage, voltage and travel speed. The average welding parameters were observed by this QA inspector as follows; 215 amps, 25.0 volts with a travel speed measured at 139 mm/m.

This QA inspector observation was conducted at random intervals during the welding of the weld layers 1 through 9 of the Test Plate identified as SW-7-1 which was not completed during this shift on this date and appeared to comply with the WPS.

### Summary of Conversations:

There were general conversations with Japan Steel Works, Ltd. (JSW) Department Manager Planning and Administration Group (Casting Engineer) Casting Department Yoshihiro Itoh and Bridge Group Steel Products Department personnel Kunio Nagaya regarding the location of welding and inspection personnel.

### 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 Venkatesh Iyer, (858) 967-6363, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Reyes,Danny	Quality Assurance Inspector
<b>Reviewed By:</b>	Lanz,Joe	QA Reviewer

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