

**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-002218**Date Inspected:** 01-Apr-2008**Project Name:** SAS Superstructure**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Contractor:** Japan Steel Works, Ltd.**OSM Arrival Time:** 830**OSM Departure Time:** 1830**Location:** Muroran, Japan**CWI Name:** M. Ashadi and H. Kohama**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 testing of the cable saddles, welding of the Procedure Qualification Record (PQR) Test Plate and inspection relative to this project. The following was observed:

**Fabrication Shop**

At the start of the shift this QA inspector assisted QA inspector Wai Pau during the observation of the continued welding and inspection of the Procedure Qualification Record (PQR) test plate identified as SW-6. The welding was performed by Japan Steel Works, Ltd. (JSW) welding personnel Naoki Murai ID 97-2118 with the test plate placed in the Flat (1G) position. Mr. Murai utilized the gas shielded Flux Cored Arc Welding (FCAW-G) as per the Welding Procedure Specification (WPS) SJ-2942 WP-9 which was also used by Quality Control (QC)

Inspector Makhmud Ashadi as a reference. The consumable utilized during the welding of the test plate was identified as a Hobart Brothers Electrode, Tri-Mark TM-55 with a diameter size of 1.6 millimeters.

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 was as follows; 334 amps, 36.0 volts with a travel speed measured at 255 mm/m.

Later in the shift this QA inspector observed, at random intervals, the QC inspector Makhmud Ashadi perform the in process weld inspection and verifying the minimum preheat and maximum interpass temperatures. The welding of the Test Plate identified as SW-6 was not completed during this shift on this date and appeared to comply with the WPS.

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# WELDING INSPECTION REPORT

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## Foundry Shop

At approximately 13:30 hours this QA inspector and Wai Pau observed Nikko Inspection Service (NIS) NDT level II technician Mr. Harumi Kohama and an assistant performed Wet Magnetic Particle Testing (WPT) on the West Deviation Saddle Casting identified as W2E2. An AC yoke and red suspension particles was utilized to perform the testing on the machined surface of the saddle casting. The testing was performed as per the MPT Procedure ASTM E709, Specification No. SJ-2878 Rev.1 Page 13 of 23. The Level II technician, Mr. Kohama performed a lift test and sensitivity test utilizing a steel rectangular shaped block which weighed approximately 4.6kgf. identified as No. 6 and a Magnetic Field Indicator accordingly. The lift test and sensitivity test appeared to meet the requirements of the contract documents and the MPT procedure. The performance and evaluation of the MPT performed by Harumi Kohama appeared to comply with the contract documents and at this time there were no indications noted by Mr. Kohama. The testing was not completed during this shift on this date and the above observations were performed by this QA inspector at random intervals.

### Summary of Conversations:

There were general conversations with Japan Steel Works, Ltd. (JSW) Bridge Group Steel Products Department personnel Kunio Nagaya relative to the Procedure Qualification Record Test and the location of the inspection and testing 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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