

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 #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003261**Date Inspected:** 14-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1800**Contractor:** Japan Steel Works**Location:** Muroran, Japan**CWI Name:** Kuan Chung**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 Saddle**Summary of Items Observed:**

The following report is based on METS observations at Japan Steel Works (JSW) in Muroran Japan. Current work: Casting, machining and repair of Saddles.

Welder Qualification Test Witness

The Caltrans Quality Assurance (QA) inspector Mr. Dong J. Shin arrived at JSW fabrication shop number 4 and observed a welder qualification test for Mr. N. Murai (97-2118) and Mr. M. Yamashita (73-4195). The welder testing was performed utilizing the Flux Core Arc Welding Process in the Horizontal position (2G) with welding procedure specification No. SJ-2983 WP-5. The filler metal appeared to be E70T-5MJ H4, AWS designation A5.29, 1.6 mm diameter. The test was performed per the AWS D1.5, 2002 Section 5.23.1.2 and Figure 5.18 requirements. The Intertek QC inspector, Mr. Kuan Chung checked joint preparation prior welding and checked welding parameter and recorded the preheat and interpass temperatures, the average amperage, voltage and gas flow.

The QC Inspector has rejected Mr. Nakoi Murai's (97-2118) test coupons by visual inspection.

Fabrication Shop # 4

On this date the QA representative Dong J. Shin arrived at Japan Steel Works (JSW) of Muroran Japan and traveled to JSW fabrication shop # 4, QA Inspector observed Mr. M. Kato (A Shift), Mr. S. Watanabe (A Shift), welding on W2-E1 fillet weld on inside of rib plate weld access hole. SMAW welding was performed utilizing welding procedure specification (WPS) SJ-3011-14. The welding was performed in the 1F (Flat) and

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2F(Horizontal) position. The filler metal utilized was identified as 4.8 mm, Class E9018M, Brand name Hoballoy. The welding parameters and heat control were monitored by Intertek Testing Services Quality Control (QC) inspector Mr. Makhmud Ashadi at periodic intervals. The minimum preheat temperature of 160 degrees Celsius and maximum inter pass temperature of 260 degrees Celsius was verified to meet the WPS requirements by Mr. Makhmud and the QA inspector utilizing Digital thermometer. This data was entered into the QC inspector's daily log, identifying the location on a weld map. The SMAW welding average amperage and voltage by clamp type meter and travel speed were verified to be within the welding procedure specification parameter range of 245 amps to 265 amps, 22 volts to 25 volts and travel speed of 132 to 161 mm per minute for the 4.0mm electrode.. The welding was continued into the night shift. Visually, general welding appears to meet the minimum requirements of the welding procedure specification and contract documents.

Summary of Conversations:

No specific conversations.

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.

Inspected By:	Shin,DJ	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer
