

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-002216**Date Inspected:** 31-Mar-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:** Makhmud Ashadi**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:

Fabrication Shop

At the start of the shift this QA inspector observed the welding and inspection of the Procedure Qualification Record (PQR) test plate identified as SW-6. The welding was performed by Japan Steel Works, Ltd. welding personnel Naoki Murai ID 97-2118 with the test plate placed to 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 Intertek Testing Services (ITS) 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. Prior to the welding of the test plate, Mr. Ashadi verified the assembly fit-up of the single-v-groove weld which appeared to comply with the AWS D1.5 -02 Joint Designation identified as B-U2-GF and the minimum preheat temperature of 110 degrees Celsius.

At this time the welder commence the welding of the test plate and this QA inspector observed the QC inspector verifying the amperage, voltage and travel speed. The average welding parameters were observed by this QA inspector were as follows; 335 amps, 36.0 volts with a travel speed measured at 260 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. (See Digital Photographs)

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Summary of Conversations:

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

Inspected By: Reyes, Danny

Quality Assurance Inspector

Reviewed By: Lanz, Joe

QA Reviewer
