

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-005494**Date Inspected:** 17-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**Contractor:** Japan Steel Works**Location:** Muroran, Japan**CWI Name:** Chung Kuan**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:**

Steel Structure Welding Shop:

W2W1 West Deviation Saddle Steel Structure: Caltrans QAI representative observed four welders perform Shielded Metal Arc Welding (SMAW) 4 layer root pass on rib plates 4-4, 4-8, 4-9, 4-11 and 4-12 of W2W1 west deviation saddle. The proper filler metal used for SMAW is Hoballoy 9018-M with 4mm diameter electrode made by Hobart Brothers, USA. The entire steel structure remains preheated to temperature minimum of 110 C degree during root pass welding. The root pass welding process and parameters have been monitored and recorded by CWI inspector Mr. Chung Kuan. Based on Caltrans QA observation, the SMAW root pass welding operation appeared to be in general compliance with requirements of AWS D1.5 2002 and Caltrans contract documents. The SMAW root pass welding surface also has been MT test after welding.

T1-1 Tower Saddle Casting and Steel Structure Joint Section: Caltrans QAI representative observed a JSW welder in process fit up and Shielded Metal Arc Welding (SMAW) process on two temporary U-shape steel supports on base plate and tower joint section of T1-1. The supports are secure the casting and steel joint portion and base plate of saddle. The proper filler metal used in the test for SMAW is Hoballoy 9018-M with 5mm diameter electrode made by Hobart Brothers, USA. The SMAW welding areas have been preheated to 110 C prior welding. The fit up and SMAW welding process and parameters have been monitored and recorded by CWI inspector Mr. Chung Kuan. Based on Caltrans observation, no discrepancies were note.

Casting Shop:

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W2W3 West Deviation Saddle Casting: Caltrans observed QAI NIS NDT level II technician perform dry MT test on the excavation areas after grinding of exterior ribs 2U, 3U, 4U, 5U, 6U, 7U and 8U sections. The dry MT test is using the yoke method. The yoke utilized appeared to be model UM 3BF, serial numbers 93-05. The magnetic field was verified with a field indicating gauge (pie gauge). Visible dry red magnetic particles were utilized and made by Magnotron, Japan. During dry MT test a numerous various size linear indications have been found on the excavation surfaces and those indications will be ground after MT test. The MT test will continue tomorrow. Based on Caltrans QA observation, the MT test operation appeared to be in general compliance with requirements of ASTM standard E709 and Caltrans contract documents.

Summary of Conversations:

As noted within the report above.

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, who represents the Office of Structural Materials for your project.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer
