

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-002690**Date Inspected:** 21-May-2008**Project Name:** SAS Superstructure**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Contractor:** Japan Steel Works**OSM Arrival Time:** 830**OSM Departure Time:** 1930**Location:** Muroan, 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:**

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

Fabrication Building number 4

At 1000 hours, the QA inspector traveled to JSW fabrication shop number 4 and observed work in progress for the fit up of the base plate to the stem and rib plates for West Deviation Saddle W2-E1 and W2-E2. One fitter was performing layout of rib locations on the base plate for casting W2-E2. Two JSW employees were performing a dimensional check of the W2-E1 rib locations in accordance with the dimension control plan.

Three JSW employees were fabricating the mounting frame that will be used to hold the saddle fabrication on a positioner for welding. The cut plates for completing castings W2-E1 and W2-E2 were stored in the area.

Machine Shop 4

The QA representative Joe Lanz traveled to Machine shop number 4 at 1700 hours, escorted by JSW representative Mr. Yoshihiro Itoh. The QA inspector observed the Tower saddle casting designated T1-2 was in process of milling the troughs on a horizontal mill.

Radiographic Test Facility

The Caltrans QA inspector performed a radiographic film review relative to the welding procedure qualification tests performed at Japan Steel Works (JSW) for the Saddle casting fabrication. The QA inspector arrived at JSW's

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NDT facility escorted by Mr. Yoshihiro Itoh who requested the review of radiographic film of the test plates for PQR SJ-2942-WP-10 (test plate SW-7-1) Caltrans Index Lot number B88-121-08 and PQR SJ-2942-WP-11 (test plate SW-7-2) Caltrans Index Lot number B88-122-08. Radiography was performed prior to and after post weld heat treating. The QA inspector reviewed the film quality and weld quality for compliance with AWS D1.5-2002 Section 6 paragraph 6.26 and Figure 6.8 (weld quality requirements for discontinuities occurring in tension welds).

The Quality Assurance Inspector concurred with Nikko Inspection Service Company's NDT Level II Inspectors inspection results for the 2 test plates except the QA inspector has noted that the test plate SW-7-1 travel speed values exceeded the allowable 10 percent variation in accordance with the contract special provisions section 8-3.01 Welding. A Welding Witness Report (TL-6032) was issued and Caltrans Witness lot number B31-032-08 was assigned to PQR SJ-2942-WP-10 and Caltrans Witness lot number B31-033-08 was assigned to PQR SJ-2942-WP-11 for tracking purposes.

Summary of Conversations:

There were general conversations with Japan Steel Works, Ltd. personnel Mr. Yoshihiro Itoh relative to the location of the welding and inspection personnel in the foundry.

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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| Inspected By: | Lanz,Joe | Quality Assurance Inspector |
| Reviewed By: | Brasel,Ron | QA Reviewer |
