

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-005252**Date Inspected:** 29-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1645**Contractor:** Japan Steel Works**Location:** Muroan, 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:**

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 Shop 4

T1-1 Assembly

The QA inspector observed the Nikko Inspection Services QC/NDT technician perform straight beam ultrasonic testing of casting to base end complete joint penetration weld. The testing was performed in accordance with the JSW procedure specification number SF-UT-1. The testing was not completed on this date and the work appears to meet the minimum requirements of the contract specifications.

T1-2 Casting

The QA inspector observed the continued casting repair welding on Tower Saddle casting T1-2. The welding was performed to build up the height of the ribs and stems in areas that were found to have excessive gap when fit to the fabricated base as shown on the approved drawings. The repair locations and repair details for this casting were submitted as Caltrans ABF-RFI-001453. The JSW welding personnel continued the buildup welding utilizing Shielded Metal Arc Welding (SMAW) per the welding procedure specification (WPS) SJ 3012-1-2. Intertek Testing Services Quality Control (QC) inspector Mr. Makhmud Ashadi monitored the welding parameters and heat control at periodic intervals. The work was not completed on this date and appeared to meet the minimum requirements of the welding procedure specification and contract documents.

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T1-2 Base

The QA inspector observed JSW personnel continue removing excess material for temporary bracing from the top of rib plates in preparation for fit up to the casting section. The excess material was removed using the manual oxygen-fuel gas method. The QA inspector noted that AWS D1.5-2002 paragraph 3.2.2 requires prior engineer's approval for manual cutting. This issue was brought to the attention of assistant structural materials representative Jay Dorst. See digital images below.

W2E2 Assembly

The QA inspector observed the continued welding of the base rib plate to casting partial penetration welds. The welding was performed. The JSW welding personnel Masao Yamashita, ID 73-4195 and Takatoshi Inoue, ID 08-5163 performed the welding utilizing the gas shielded flux cored arc welding process per the welding procedure specification (WPS) SJ-3011-5. The welding was performed in the 1G (Flat) position. Intertek Testing Services Quality Control (QC) inspector Mr. Ashadi monitored the welding parameters and heat control at periodic intervals. The work was not completed on this date and appeared to meet the minimum requirements of the welding procedure specification and contract documents.

W2E3 Base

The QA inspector observed the in process welding of the structural steel plates for the West Deviation Saddle Base W2E3. Two JSW welding personnel continued the fill welding of rib to casting partial penetration welds. The welding was performed utilizing the gas shielded flux cored arc welding process per the welding procedure specification (WPS) SJ-3011-3. Intertek Testing Services Quality Control (QC) inspector Mr. Ashadi monitored the welding parameters and heat control at periodic intervals. The work was not completed on this date and appeared to meet the minimum requirements of the welding procedure specification and contract documents.



T1-2 Base bevel cut by manual oxy-fuel gas torch



T1-2 Base bevel cut by manual oxy-fuel gas torch

Summary of Conversations:

There were general conversations with Intertek Testing Services Certified Welding Inspector Mr. Makhmud Ashadi relative to the location of the welding and inspection personnel in the fabrication shop number 4 and as noted 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, (510) 385-5910, who represents the Office of Structural Materials for

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your project.

Inspected By:	Lanz,Joe	Quality Assurance Inspector
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Reviewed By:	Mertz,Robert	QA Reviewer
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