

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-003315**Date Inspected:** 25-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.

PQR WITNESS

At 1000 hours, the Caltrans Quality Assurance (QA) inspector arrived at JSW fabrication shop number 4 and observed a procedure qualification test designated GJ6-3402, SW-11-2 performed by JWS welding personnel Mr. K. Kobayashi ID 08-5023 and Mr. Yamashita ID 78-4195. The welding was performed utilizing the flux cored arc welding process in the flat (1G) position. The filler metal appeared to be TM-55, E70T-5CJH4, AWS designation A5.20, 1.6 mm diameter. The welding was performed per the AWS D1.5, 2002 Section 5.13 requirements. The Intertek QC inspector, Mr. Kuan Chung checked the welding parameters and recorded the preheat and interpass temperatures, average amperage, voltage and the travel speed for all weld passes. The QA inspector observed that the welder Mr. K. Kobayashi and Mr. M. Yamashita ground each weld pass to smooth bright finish prior to starting the next weld pass. The welding of this plate was completed on this date. The QA inspector noted that the welding appeared to meet the minimum requirements of AWS D1.5-2002 and the contract documents.

NDT Inspection (Foundry Shop)

On this date the QA representative Dong J, Shin traveled to JSW foundry shop and observed NISC NDT Technician Mr. K. Nishida and Mr. M. Wada performed Magnetic Particle testing on Casting W2E1. The MT was performed after Post Weld Heat Treatment. Magnetic particle testing was performed with a yoke using AC

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current with red particles. QA Inspector checked the Yoke calibration date and verified the magnetic field using a field indication gauge. The results appear to meet ASTM E-709 requirements.

Mechanical Test

QA Inspector observed side bend test for Welder Qualification test with AWS D1.5(2002) Sec,5.27.3 and Figure, 5.25 The Test results were as follow.

Welder Name	Welder ID#	Test Positions	Test Result
Yuichi Arai	08-5157	FCAW 2G	Acceptable

Verification MT

QA Inspector Mr. Dong J, Shin performed verification MT after NISC testing. The test area was run out tab removal areas of the out side of rib to base plate partial joint penetration groove welds. A few locations were ground by JSW remove indications. Please See PMIV detail reports for future information.

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
