

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-003296**Date Inspected:** 24-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Japan Steel Works**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, Deviation and Jacking Saddles**Summary of Items Observed:**

On this date OSM Quality Assurance (QA) Representative Daniel L. Reyes was present during the welding of the structural steel components for the West Deviation Saddles relative to this project. The following was observed:

Fabrication Shop # 4

The QA inspector arrived at Japan Steel Works, Ltd. (JSW) and commenced review of the work schedule for the C-Shift on this date. At the conclusion of the review the QA inspector traveled to the Fabrication Shop # 4 to observe the continued repair welding of the Partial Joint Penetration (PJP) groove welds on the West Deviation Saddle identified as W2E1. The QA inspector noted that the Deviation Saddle had been rotated ninety degrees to accommodate the performance of the welding in the horizontal (2G) position for the welds identified as vertical. The areas were marked for repair by the Quality Control (QC) Inspector, Intertek Testing Services (ITS) personnel Makhmud Ashadi and were repaired accordingly for the following discontinuities; excessive undercut, overlap and general grinding of weld profiles.

The welding was performed by JSW welding personnel Mamoru-Kubota ID 74-3666 who utilized the Welding Procedure Specification (WPS) SJ-3011-3 which was also used by the QC inspector as a reference. The Shielded Metal Arc Welding (SMAW) process was utilized and the electrode size appeared to be 4.0 mm in diameter. The consumable appeared to be a Hobart Brothers Product and the trade name appeared to be identified as Hoballoy 9018-M which appeared to comply with the AWS Specification A5.5 and the AWS Classification E9018-M H4R. The QA inspector observed the QC inspector Makhmud Ashadi verify the minimum preheat temperature of 195 Celsius and the maximum interpass temperature of 220 Celsius. At the conclusion of verifying the surface temperatures the QC inspector verified the Alternating Current (AC) welding parameters and was observed as follows, 195 amps and 23 volts with a travel speed measured at 101 mm/m. The repair welding was performed on

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the following welds, E1Y-8V, E1Y-12V and E1Y-16V which was completed during this shift on this date.

QA Observation Summary

This QA inspector randomly observed the in process Shielded Metal Arc Welding (SMAW) during the repair welding of the structural steel components for the West Deviation Saddles identified as W2E1. This QA inspector noted that it appeared the approved and latest revised WPS's were posted at the welding station and that each approved welder was entered in the latest revised Welding Personnel Log issued by Japan Steel Works, Ltd. The welding parameters, preheat and interpass temperatures were verified by the QA inspector utilizing a Fluke 337 clamp meter for the electrical welding parameters and Tempilstik temperature indicators for the preheat temperatures. The filler metal utilized by the JSW welding personnel was also verified. The QC inspector, Mukhmud Ashadi appeared to perform the visual weld examinations, monitoring of the welding and the verification of the welding parameters as per the contract documents.

Summary of Conversations:

There were no pertinent conversations relative to the project on this date.

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
