

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001793**Date Inspected:** 19-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Japan Steel Works, Ltd.**Location:** Muroran, Japan

CWI Name:	N/A	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:	PQR Test Plate, CW-4-1	

Summary of Items Observed:

On this date OSM Quality Assurance Representative Daniel L. Reyes observed the casting of the cable saddles, welding of the structural steel components and inspection relative to this project. The following was observed:

At the start of the shift this QA inspector observed the fit-up assembly, the welding and inspection of the Procedure Qualification Record (PQR) test plate identified as CW-4. The welding was performed by Japan Steel Works, Ltd. (JSW) welding personnel Hitoshi Sato who appeared to utilize the Shielded Metal Arc Welding (SMAW) process as per the Welding Procedure Specification (WPS) SJ-2941 WP-4 which was also used by JSW Welding Engineer personnel Tomio Imai as a reference. The consumable utilized during the welding of the test plate was manufactured by Kobe Steel, Ltd. Welding Company and appeared to be identified as a LB-62. The diameter of the electrodes utilized appeared to be 4.0 and 5.0 millimeters.

The welder Mr. Sato measured the minimum preheat temperature of 150 degrees Celsius utilizing Tempilstik Heat Indicator crayon which was also verified by Mr. Imai. At the conclusion of verifying the surface temperature the welder Mr. Sato commence the welding of the root pass utilizing the 4.0 millimeter electrode. At this time the QA inspector observed Mr. Imai verify the amperage, voltage and the travel speed. The average welding parameters were observed as follows; 128 AC amps, 24.0 AC volts with a travel speed measured at 7 cm/m.

Later in the shift this QA inspector observed Mr. Imai perform the in process weld inspection of the subsequent weld layers and verify the following; the minimum preheat temperature, maximum interpass temperature and the DCEP welding parameters. At the conclusion of the Fifth (5) weld layer (seven individual weld passes) the welder Mr. Sato commence utilizing the 5.0 millimeter electrode. At this time the QA inspector observed Mr. Imai verify the welding parameters which appeared as follows; 172 AC amps, 24.5 AC volts with a travel speed measured at 6 cm/m. The welding of the Test Plate identified as SW-5-1 was not completed during this shift on this date and

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

appeared to comply with ASME IX and the WPS. (See Digital Photographs)



Summary of Conversations:

There were general conversations with JSW Deputy Manager personnel Yoshihiro Itoh relative to the Procedure Qualification Record Test and the location of the welding personnel.

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: Brasel,Ron

QA Reviewer
