

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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001819**Date Inspected:** 25-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** Japan Steel Works, Ltd.**Location:** Muroran, Japan

CWI Name:	Chung Kuan and Makhmud Ashad			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, SW-5-2 and Castings		

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 commence review of the following contract documentation identified as ASTM 148; Standard Specification for Steel Casting, High Strength, for Structural Purposes, ASTM 488; Standard Practice for Steel Casting, Welding, Qualifications of Procedures and Personnel and ASTM 609; Standard Practice for Castings, Carbon, Low-Alloy, and Martensitic Stainless Steel, Ultrasonic Examination.

Foundry Shop

Later in the shift at approximately 13:20 hours this QA inspector observed the continued Ultrasonic Testing (UT) of the West Deviation Saddle performed by Nikko Inspection Services (NIS) technician Harumi Kohama. It was also observed by this QA inspector NIS ultrasonic technician Atsusi Seino performing UT on the Procedure Qualification Record (PQR) test plate identified as CW-4. In regards to the PQR test plate it appeared that Mr. Atsusi Seino indicated on the test plate areas with discontinuities in which Mr. Seino informed this QA inspector that a further evaluation utilizing the shear wave method would be required to determine its disposition and evaluation of the discontinuities. Both technicians utilized the ultrasonic instrument identified as a Krautkramer USM35. The ultrasonic testing was not completed during this shift on this date and appeared to comply with the contract documents.

Fabrication Shop

At approximately 14:10 hours this QA inspector observed the continued welding and inspection of the Procedure

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Qualification Record (PQR) test plate identified as SW-5-2. The welding was performed by Japan Steel Works, Ltd. (JSW) welding personnel Ko Bayashi ID 08-5023 utilizing the Shielded Metal Arc Welding (SMAW) process as per the Welding Procedure Specification (WPS) SJ-2942 WP-8 which was also used by Intertek Testing Services (ITS) Quality Control (QC) Inspectors Makhmud Ashadi and Chung Kuan as a reference. The size of the consumable utilized during the welding of the test plate was 4.0 millimeters and was identified as Hoballoy E9018-M H4R which is a product manufactured by Hobart Brothers. At this time the QA inspector observed the QC inspector Mr. Makhmud Ashadi verify the amperage, voltage and the travel speed. The average welding parameters were observed as follows; 152 AC amps, 22.0 AC volts with an average travel speed measured at 67 mm/m.

Later in the shift this QA inspector observed, at random intervals, the QC inspectors Makhmud Ashadi and Chung Kuan perform the in process weld inspection and verified the following; the minimum preheat temperature, maximum interpass temperature and the DCEP welding parameters. The welding of the Test Plate identified as SW-5-2 was not completed during this shift on this date and appeared to comply with the WPS.

Summary of Conversations:

There were general conversations with the Bridge Group personnel Kunio Nagaya relative to the Procedure Qualification Record Test, ultrasonic testing of the steel castings and the location of the welding and inspection 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
