

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-003899**Date Inspected:** 19-Sep-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 Tower Saddles relative to this project. The following was observed:

Fabrication Shop # 4

At the start of the shift the QA inspector traveled to the Fabrication Shop # 4 to observe the scheduled shop welding, QC inspection and the verification of the Alternating Current (AC) welding parameters on the structural steel plate components for the Tower Saddle identified as T1-1. The welding was performed, after the removal of the run-off plates, at the inside edge face of the weld access hole located at the end rib plate to stem plate connection. The welding was performed by Japan Steel Works, Ltd. (JSW) welding personnel Hidetaka Nishikawa ID 08-5162. The welder, Hidetaka Nishikawa utilized the Welding Procedure Specification (WPS) SJ-3012-11, which is pending approval at this time and was also used by the QC inspector as a reference during verification of the welding parameters. The welding was performed on the end rib plate to stem plate connection identified as 7Y-5V (1-3) and was performed in the horizontal (2F) position.

The QA inspector also observed JSW welding personnel, Kouzo Kobayashi ID 08-5023 removing the run off extension plates on the structural steel connections identified as 7Y-5V (1-2). Kouzo Kobayashi utilized the manual air carbon arc cutting process to perform this task.

The consumable utilized by the welding personnel appeared to be a Hobart Brothers Product and the trade name was identified as LB-52A which appeared to comply with the AWS Specification A5.1 and the AWS Classification E7016. The size of the electrode was 5.0 mm in diameter.

The Quality Control (QC) inspection was performed by Intertek Testing Services (ITS) personnel Makhmud

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Ashadi who performed the verification the preheat temperatures, welding parameters and the in process weld inspection during this shift. The welding parameters were verified utilizing a Hioki 3109 Clamp Meter, Model RMS and the surfaces temperatures were verified utilizing an Anritsu HA 100E digital surface thermometer during the QC verification.

Later in the shift this QA inspector observed, at random intervals, the QC inspector performing QC verification of the welding parameters, the minimum preheat and maximum interpass temperatures.

The QA inspector's observations were performed at random intervals during the shift. The 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 surface temperatures. The filler metal utilized by the JSW welding personnel was also verified. The QC inspector ITS personnel, Makhmud Ashadi appeared to perform the visual weld examinations, monitoring of the welding and the verification of the welding parameters in accordance with the contract documents.

See Weld Joints in Progress Inspected, below, in regards to QA observation of the welding parameters recorded during this shift on this date. The following digital photographs illustrate the observations of the activities performed on this date.



Item	Weld Identification	Applicable WPS	CWI Name	Amperage	Voltage	TravelSpeed	Preheat Temp	Remarks
1	7Y-5V (1-3)	SJ-3012-11	M. Ashadi	244 AC	25 AC	183 mm/m	167 Degrees C.	Nishikawa

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.

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Inspected By: Reyes,Danny

Quality Assurance Inspector

Reviewed By: Lanz,Joe

QA Reviewer