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 #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 70.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-003840
Date Inspected: 11-Sep-2008

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Japan Steel Works

OSM Arrival Time: 2300
OSM Departure Time: 700
Location: Muroran, Japan

CWI Name: Makhmud Ashadi

Inspected CWI report:	☐	**Yes**	☑	**No**	☐	**N/A**
Electrode to specification:	☑	**Yes**	☐	**No**	☐	**N/A**
Qualified Welders:	☑	**Yes**	☐	**No**	☐	**N/A**
Approved Drawings:	☑	**Yes**	☐	**No**	☐	**N/A**

CWI Present:	☑	**Yes**	☐	**No**		
Rod Oven in Use:	☐	**Yes**	☐	**No**	☑	**N/A**
Weld Procedures Followed:	☑	**Yes**	☐	**No**	☐	**N/A**
Verified Joint Fit-up:	☑	**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 shop to observe the scheduled welding operation and the Quality Control (QC) Inspection of the Tower Saddle identified as T1-1. The gas shielded Flux Cored Arc Welding (FCAW-G) of the Partial Joint Penetration (PJP) groove welds was performed by Japan Steel Works, Ltd. personnel Arai Yuchi ID 08-5157 and Satoru Watanabe ID 08-5159. The Welding Procedure Specification (WPS) SJ-3012-3 was utilized by the welding personnel and was also used by Intertek Testing Services (ITS) QC inspector Makhmud Ashadi as a reference. The welding was performed in the flat (1G) position with the rib plate in the horizontal plane and the weld metal deposited from above during the welding of the rib plate to the stem plate connection. The QA inspector also observed the QC inspector monitor the production welding sequence utilizing the JSW Distortion Control Plan identified as SJ-3151 Rev. 3, Attachments 5 and 6 Step # 5.
The WPS utilized appeared to be supported by the Procedure Qualification Record (PQR) A1-141121-03 identified as test plate number SW-6-1 and the material appeared to comply with the ASTM Specification A709M Gr. 345T.

The welding consumable utilized was identified as TM55 and manufactured by Hobart Brothers which appeared to comply with the American Welding Society (AWS) Specification A5.29 and the AWS Classification E70T-5MJ H4. The size of the electrode utilized by JSW welding personnel was 1.6 mm in diameter.

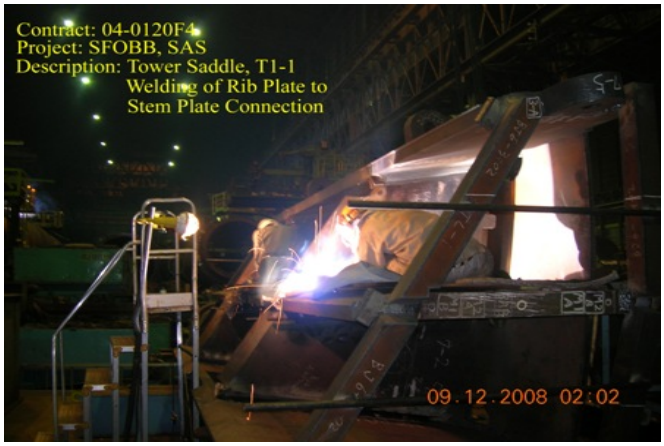
WELDING INSPECTION REPORT

(Continued Page 2 of 2)

The QC inspector utilized a Hioki 3285 amp/volt clamp meter identified with JSW ID number CM030 to verify the Direct Current Electrode Positive (DCEP) welding parameters and an Anritsu HA-400E digital surface thermometer to verify 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 for the PJP groove welds identified as 7Y-6V (1-2) and 7Y-7V (1-3).
The following digital photograph illustrates the observations of the activities performed on this date.



Item	Weld Identification	Applicable WPS	CWI Name	Amperage	Voltage	TravelSpeed	Preheat Temp	Remarks
1	7Y-6V (1-2)	SJ-3012-3	M. Ashadi	342 DC	33 DC	302 mm/m	146 Degrees C.	Arai
2	7Y-7V (1-3)	SJ-3012-3	M. Ashadi	340 DC	34 DC	300 mm/m	150 Degrees C.	Watanabe

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