DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

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

Report No: WIR-002682
Date Inspected: 24-May-2008

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

OSM Arrival Time: 2230
OSM Departure Time: 830
Location: Muroran, Japan

CWI Name:	Motoi-Hidaka			**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, Jacking and Deviation Saddles

Summary of Items Observed:

On this date OSM Quality Assurance (QA) Representative Daniel L. Reyes observed the following activities relative to this project. The following was observed:

At the start of the shift, the QA inspector traveled to the Foundry Shop to observe the continued repair welding of the rib build-up areas on the West Deviation Saddle Casting identified as W2E1. The repair welding is being conducted at Lane 3 of the Foundry Shop at the designated area identified as “The Welding Area.” The QA inspector observed the welding performed by Japan Steel Welding, Ltd. (JSW) welding personnel Noritake-Tamura ID 93-2337 on the repair area of rib 7L identified as 2-6 and Kazuya-Komai ID 06-8002 performing the repair welding on the rib 8L identified as repair area 2-2. The welders performed the repair welding in the horizontal (2G) position with the work in the vertical plane and the axis of the weld horizontal and was performed utilizing the Shielded Metal Arc Welding (SMAW) process as per the Welding Procedure Specification (WPS) identified as SJ-3026-2 which was also used by the Quality Control (QC) Inspector Motoi-Hidaka as a reference during QC verification.

At the conclusion of verifying the preheat temperature of 200 degrees Celsius at the weld repair area identified as 2-2, the QC inspector verified the Alternate Current (AC) welding parameters and shortly thereafter, verified the preheat temperature of 205 degrees Celsius at the weld repair area identified as 3-10, prior to verifying the AC welding parameters. The welding parameters appeared to comply with the contract documents.

The consumable utilized by the welders appeared to be a Hobart Brothers Product identified as LB-106, with the diameter size of 5.0 mm which appeared to comply with the AWS Specification A5.5 and the AWS Classification E10016-G.

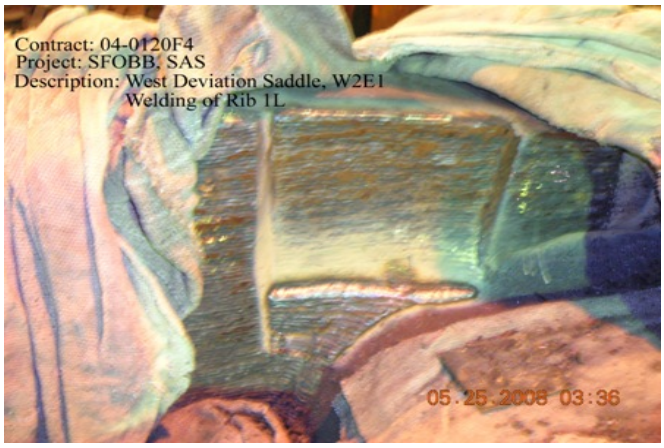
Later during this shift the QA inspector, at random intervals, observed the QC inspectors perform QC verification of the welding parameters, minimum and maximum surface temperatures and performing the visual weld inspection.

QA Observation Summary

This QA inspector randomly observed the in process Shielded Metal Arc Welding (SMAW) for the repair welding of the ribs on the West Deviation Saddles identified as W2E1. This QA inspector observed that the approved and latest revised WPS's were posted at the appropriate 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 as noted by this QA inspector utilizing a Fluke 337 clamp meter for the electrical welding parameters and Tempilstik temperature indicators for preheat and interpass temperatures. The calibration dates of the measuring instruments utilized by the QC inspector, the clamp amp/volt meter and the digital surface thermometer, were previously verified by this QA inspector. The filler metal utilized at the welding stations was also verified. The QC inspector, Motoi-Hidaka appeared to perform the visual examinations and monitoring of the welding per the contract documents. The welding and inspection was not completed during this shift and appeared to be in general compliance 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 filler metal utilized at the welding stations was also verified.

The following digital photographs illustrates the observations of the activities performed on this date.



Item	Weld Identification	Applicable WPS	CWI Name	Amperage	Voltage	TravelSpeed	Preheat Temp	Remarks
1	W2E1, Rib 1L/3-10	SJ-3026-2	Motoi-Hidaka	203 AC	24.0 AC	151.2 mm/m	205 Degrees C.	Kazuya-Komai
2	W2E1, Rib 7L/2-6	SJ-3026-2	Motoi-Hidaka	212 AC	24.5 AC	150 mm/m	200 Degrees C.	Noritake-Tamura

Summary of Conversations:

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

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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