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

Bay Area Branch
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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-009215
Date Inspected: 15-Sep-2009

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

OSM Arrival Time: 700
OSM Departure Time: 1630
Location: Muroran, Japan

CWI Name: Chung Fu Kuan

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ 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, Jacking, and Deviation Saddles

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 and the Foundry at Japan Steel Works.

Fabrication Shop #4:

Repair Weld Operation and NDT Operation completed on West Deviation Saddle Segment W2-E3

The QA Inspector observed that the repair weld operation performed on the excavated area- (215 mm in length x 24.5 mm in width x 10.5 mm in depth) was completed on the stem (cast section) to stem plate (built-up section) of weld joint no. E3S-2U of west deviation saddle segment W2-W3. The QA Inspector also observed that Nikko Inspection Services (NIS) Quality Control (QC) Non-Destructive Testing (NDT) Inspector Mr. R. Kumagai (#132) completed the magnetic particle test (MPT) inspection (dry method) on the repair weld plus (50) mm on each side of the repair weld on weld joint no. E3S-2U. The MPT inspection was in accordance with Section 6.7.6.1 and to the acceptance-rejection criteria in Section 6.26.2.2.

Final NDT Operation completed on Saddle: Tower Saddle Segment T1-3

The QA Inspector observed that Nikko Inspection Services (NIS) Quality Control (QC) Non-Destructive Testing (NDT) Inspector Mr. R. Kumagai (#132) completed the final magnetic particle test (MPT) inspection (dry method) on the partial-joint penetration (PJP) and complete-joint penetration (CJP) butt and tee joint groove welds after the final post weld heat treatment stress relief operation on the rib (cast section) to rib plate (built-up section), stem (cast section) to stem (built-up section), rib plate (built-up section) to base plate, and stem plate (built-up section) to base plate on tower saddle segment T1-3. The MPT inspection was in accordance with Section 6.7.6.1 and to

the acceptance-rejection criteria in Section 6.26.2.2.

Final NDT Operation completed on Saddle: West Deviation Saddle Segment W2-W3

The QA Inspector observed that Nikko Inspection Services (NIS) Quality Control (QC) Non-Destructive Testing (NDT) Inspector Mr. M. Sato (#81) completed the final magnetic particle test (MPT) inspection (dry method) on the partial-joint penetration (PJP) butt and tee joint groove welds after the final post weld heat treatment stress relief operation on the rib (cast section) to rib plate (built-up section), stem (cast section) to stem (built-up section), rib plate (built-up section) to base plate, and stem plate (built-up section) to base plate on west deviation saddle segment W2-W3. The MPT inspection was in accordance with Section 6.7.6.1 and to the acceptance-rejection criteria in Section 6.26.2.2.

QA NDT Verification of Saddle: Tower Saddle Segment T1-3 (steel section to steel section)

The QA Inspector performed ultrasonic test (UT) verification inspection on complete-joint penetration (CJP) tee and corner joint groove weld no's. 9Y-12L-3 and 9Y-5L-4 respectively, after the final post weld heat treatment (PWHT) stress relief operation was completed on the rib plate (built-up section) to base plate in accordance with AWS D1.5-2002 section 6.13 and to the UT acceptance-rejection criteria for compressive stress in Table 6.4. The QA Inspector verified that the UT inspection results were in compliance with Table 6.4. See Ultrasonic Test Inspection Report TL-6027 dated September 15th 2009 for details of equipment used and location of inspection on weld joint no's. 9Y-12L-3 and 9Y-5L-4 of tower saddle segment T1-3.

Foundry:

Repair Weld Operation pending on Saddle: West Jacking Saddle

The JSW Representative Mr. Hideaki Kon informed the QA Inspector that the NIS QC Inspection personnel completed the engineering communication sheet (ECS) for both the major repair weld excavations and minor repair weld excavations and JSW also has received approval from the Engineer to start the major repair weld operation on the west jacking saddle. The major and minor repair weld operation is tentatively scheduled to start on September 23rd 2009.

Unless otherwise noted in this report, all observations reported on this date appeared to be in general compliance with the applicable contract specifications.

Summary of Conversations:

No significant conversations were reported 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 Nina Choy at (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson,Art	Quality Assurance Inspector
Reviewed By:	Guest,Kittric	QA Reviewer