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 #: 69.28

WELDING INSPECTION REPORT

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

Report No: WIR-000334
Date Inspected: 20-Jul-2007

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 800
OSM Departure Time: 1730
Location: Shanghai, China

CWI Name:	N/A		**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: RT Review & MTR's

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector, Bruce Berger was present to observe quality control functions related to welding, testing and fabrication procedures at the Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Caltrans Quality Assurance (QA) Inspector Bruce J. Berger witnessed the initial radiographic set-up for two of the four 90 millimeter procedure qualification test which were to be radiographed today. The four PQRs being radiographed HP2007147, HP2007148, HP2007149 and HP2007153 of which the initial set-up was witnessed for HP2007149 & HP2007153. As part of the set-up the two 700 millimeter long by 90 millimeter wide plates were set on edge with the weld caps facing each other. There was a distance of 1600 millimeters between the two faces giving a source-to-film distance (SFD) of 890 millimeters for each exposure. Two penetrameters were placed on each test plate, opposite ends of the exposure, opposite sides of the weld on face A. The penetrameters were number 50 American Society of Mechanical Engineers (ASME) hole types with 1, 2 and 4-T holes in each. A 12 millimeter, lead letter B was observed on the back of each film cassette. It was also observed that there were no American Society of Welding D1.5 Bridge Welding Codes or a written radiographic procedure for reference on site. Each PQR plate was approximately 700 millimeters in length with a center line drawn transverse to the weld and two more lines drawn transverse to the weld 300 millimeters out in each direction. Penetrameters were placed on the parent material with the centerline of the T-hole with in 15 millimeters to the end of the exposure and 20 millimeters from the toe of the weld. Actual radiography was not witnessed as there were no survey meters or other safety equipment available for personnel protection. The only warning signal was a manually controlled rotating red light.

WELDING INSPECTION REPORT

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Caltrans Quality Assurance (QA) Inspector Bruce J. Berger continued the review of the material test reports (MTR) today for the 112 plates received over the previous two days. The plates were all ASTM A709M-345T2 material and were accompanied with material test reports some of which had the letter Z or a Z25 after the material type on the MTR. Questions were raised as to the specific meaning of these letter designations to American Bridge/Fluor personnel. There was no fine grain size given on the MTRs and the length of the elongation pieces (50mm or 200mm) were not given on the MTRs either. The Assigned lot number for these plates is B72-068-07.

Summary of Conversations:

No relevant conversations took place 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Berger,Bruce	Quality Assurance Inspector
Reviewed By:	McClary,David	QA Reviewer