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 #: 69.28

WELDING INSPECTION REPORT

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

Report No: WIR-000967
Date Inspected: 05-Nov-2006

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

OSM Arrival Time: 1400
OSM Departure Time: 2300
Location: Shanghai, China

CWI Name: Sun Web/Jiang Jian Fei

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: Orthotropic Box Girder (OBG)/Check Sample

Summary of Items Observed:

The Caltrans Quality Assurance (QA) representative Roscoe Dixon arrived at Zhenhua Port steel fabrication welding shop of Shanghai, China to periodically monitor Quality Control (QC) functions. While on site this QA Inspector observed the following:

Plate Material Storage (Check Samples):

This QA Inspector Dixon met with American Bridge/Fluor (ABF QA Inspector Mr. Kevin Dye and Quality Control (QC) Mr. Sun Bo at the plate yard and visually verified the ZPMC personnel packaging the 10 Check samples Identified Mr. Dye, and Mr. Bo, as the (second batch) plate list No. 22~31 check samples.

These samples had been witnessed by Caltrans QA Inspector Tim McClendon for traceability information such as roll direction, heat numbers, grade of material and batch numbers prior to samples being flame cut.

This QA Inspector witnessed the 10 each above listed samples being placed into a wooden box and sealed for delivery to the Shanghai Institute Of Steel Technology for the purpose of being tested.

Orthotropic Box Girder (OBG):

This Caltrans QA Inspector preformed random visual observations in Bay 3 ZPMC and observed qualified welder He Yumei ID # 048625 performing tack welding utilizing the Flux Cored Arc Welding (FCAW) process to weld the W.T. stiffeners to the OBG bottom plate panel's.

The stiffeners were being welded in the horizontal (2G) position, and are shown on sheet BP7 as and bottom plate sheet PL38 A.

This QA Inspector identified the FCAW welding consumable as Supercored 71H, classification E71T-1, diameter 1.4mm (0.55 inches). The Welding Procedure Specification (WPS) posted in the welding area was WPS-B-T-2132-1. This QA Inspector Dixon observed the ZPMC Certified Welding Inspector (CWI) monitoring weld parameters.

This QA Inspector also performed random verification of weld parameters and documented them as follows: welding amperage 275 amps, welding voltage 27.9 volts with a travel speed of 533.3 millimeters per minute mm/min.

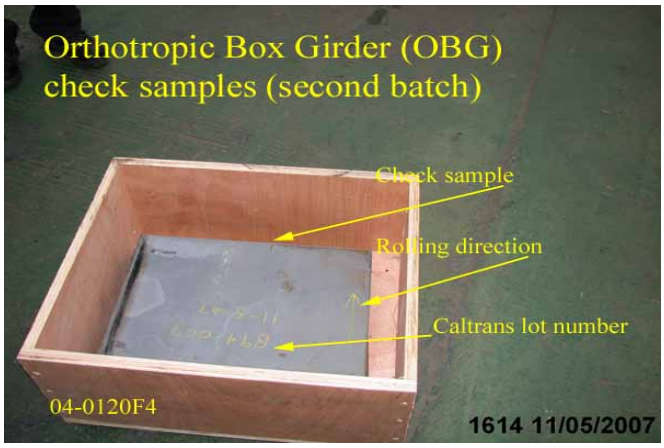
The weld parameters appeared to comply with the above-approved ZPMC WPS.

Orthotropic Box Girder (OBG):

This QA Inspector Dixon observed ZPMC personnel performing drilling operations on the RSC WT21 X 57 bottom deck Stiffeners.

This QA inspector observed that ZPMC was using a template with hardened bushings to help with accuracy of drilling.

The ZPMC QC Inspector for the hole drilling operation identified himself as Wang Chuang Xin, after reviewing the shop drawings; this QA Inspector found that the material appeared to be in general compliance with the contract documents. The attached photographs below provide additional detail.



Summary of Conversations:
As noted above and basic communication between QC Inspector and QA inspector when and where inspections are to be performed.
Comments

WELDING INSPECTION REPORT

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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:	Dixon,Roscoe	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer