

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003892**Date Inspected:** 09-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**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:** OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

**OBG Assembly**

The Quality Assurance Inspector observed numerous sloping flange plate connections with undersized reinforcement. Weld detail WD20N requires a reinforcing fillet to be 5 millimeters on the acute side, and 8 millimeters on the obtuse side. The following is a list of weld numbers accepted by ZPMC visually and by the required non destructive testing; SSD19-PP029-131, SSD19-PP029-127, SSD17A-PP021-009, SSD17A-PP021-126, SSD13A-PP036-131, and SSD13A-PP036-127. The Quality Assurance Inspector observed several others of the same connection that appears to be completed however it is not clear that ZPMC has completed visual and non destructive testing requirements. The Quality Assurance Inspector generated an incident report pertaining to the discrepancy. Below is a digital photograph illustrating the discrepancy.

**Segment 5CE**

The Quality Assurance observed an excessive root opening measuring approximately 6.5 millimeters at floor beam SSD1-PP035-135. ABF Representative Peter Shaw was informed of the discrepancy. Mr. Shaw stated ZPMC was planning to weld the joint with metal backing rather than welding it as detailed as a double V complete joint penetration weld. Below is a digital photograph illustrating the discrepancy.

**Segment 5BE**

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# WELDING INSPECTION REPORT

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The Quality Assurance observed an excessive root opening measuring approximately 6.5 millimeters at floor beam SSD1-PP035-135. ABF Representative Peter Shaw was informed of the discrepancy. Mr. Shaw stated ZPMC was planning to weld the joint in it's as built condition. The Quality Assurance informed Mr. Shaw that a Non Conformance would be generated if the joint was welded with an excessive root opening.



## Summary of Conversations:

As stated in the contents of the above report.

## 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 Ady Velasco(707) 552 7715, who represents the Office of Structural Materials for your project.

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**Inspected By:** Bertlesman,Greg

Quality Assurance Inspector

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**Reviewed By:** Lanz,Joe

QA Reviewer