

**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-000943**Date Inspected:** 30-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Lu Jian Ping**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 Mock-up**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Item Description	WBS	Dwg No.	Status
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## 1 Cross Bracing Welding Consumables

The QA inspector had a conversation with the ZPMC representative Xu Jun the QA inspector asked Mr. Xu Jun if the welding consumable for the flux cored welding (FCAW) electrodes (E71T-1 supercored) used on 11/29/07 for the tack welding the cross Bracing Tower Mock-up 89M met the minimum requirements for welding Seismic Performance Critical Members (SPCM). After Mr. Xu Jun inquired the production and QC personnel, Mr. Xu Jun relayed to the QA inspector that the spool of wire used in the morning to tack weld the cross bracing assembly was coming from a recycle SPCM spool (electrodes that have exceeded maximum exposure time to the atmosphere for welding SPCM). Mr. Xu Jun added that the spool taken from the storage at 1300 hours was a new spool of wire taken from a sealed back. Mr. Xu Jun relayed also that the drawing given by ABF did not indicated that the Cross bracing were SPCM material and that ZPMC was not aware that the cross bracing from Tower Mock-up 89M were SPCM material.

The QA inspector had a conversation with the Caltrans Task Leaders Dave McClary and Robert Cuellar. The QA inspector brought to the attention that ZPMC used electrodes to tack weld the cross bracing assembly for the Tower Mock-up 89 M that exceeded the maximum exposure time to the atmosphere required to weld SPCM material. Mr. Dave McClary relayed to the QA inspector that this item would be discussed on the ABF, ZPMC and Caltrans issues meeting.

The QA inspector had a conversation with Mr. Robert Cuellar, the QA inspector relayed to Mr. Robert Cuellar that the

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# WELDING INSPECTION REPORT

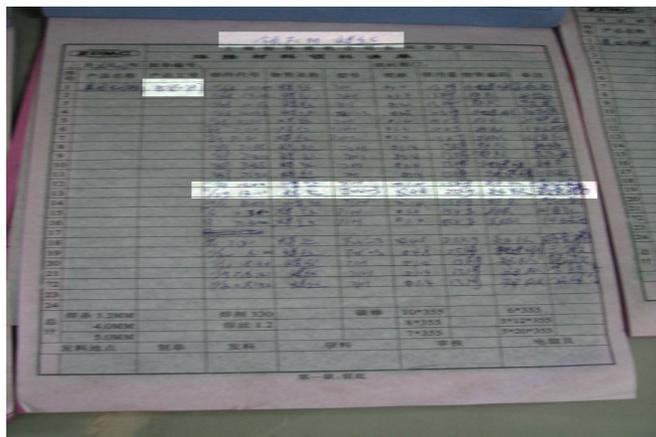
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ZPMC's welding Consumable Log is still in Chinese which is not in conformance with the log submitted on the ZPMC's WQCP(English and Chinese).

The photograph below show the welding consumable log for the 11/29/07 where according with ZPMC the welder Li Shao Qian took an spool of FCAW electrode consumable at 1300 for welding the SPCM cross bracing.



### Summary of Conversations:

As noted above.

### 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.

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**Inspected By:** Acuna,Alfredo

Quality Assurance Inspector

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**Reviewed By:** Cuellar,Robert

QA Reviewer