

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-000125**Date Inspected:** 16-Apr-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhou Daqing**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:** N/A**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector, Alfredo Acuna was present for the welder and welding operator qualification tests scheduled for this project. Moody International representative, Zhou Daqing and assistants were observed by the QA inspector performing verifications of the welding parameters, amperages, voltages, travel speeds, preheat and interpass temperatures for the welder qualification tests as follows:

Flux Cored Arc Welding: ZPMC welders, Lu Zhi Zhang, Shi Yan Hao, Li Shao Liang, Li Shu Liang, Liu Miao and Xin Meng were observed by the QA Inspector performing welder qualification test plates 2007-0406034 through 20070406039 respectively using the semi-automatic flux cored arc welding gas (FCAW-G) process in the vertical (3G) position with the 1.4 mm diameter Supercore 71-H electrode following the welding procedure specification WPS-B-T-2233-B-U2a-F on the 26 mm thick, fracture critical test plates. The root opening of the joint was approximately 6 mm. The QA Inspector performed random verifications of amperages, voltages, travel speeds, preheat and interpass temperatures after Moody International verifications. The QA observed that the welding appeared to be in general compliance with the contract documents. However, the QA inspector recorded welder Lu Zhi Zhang's travel speed was outside of the WPS requirements. The QA inspector relayed to Mr. Zhou that Mr. Lu was welding outside of the travel speed required by the WPS. Mr. Zhou decided to fail Mr. Lu welder qualification test coupon.

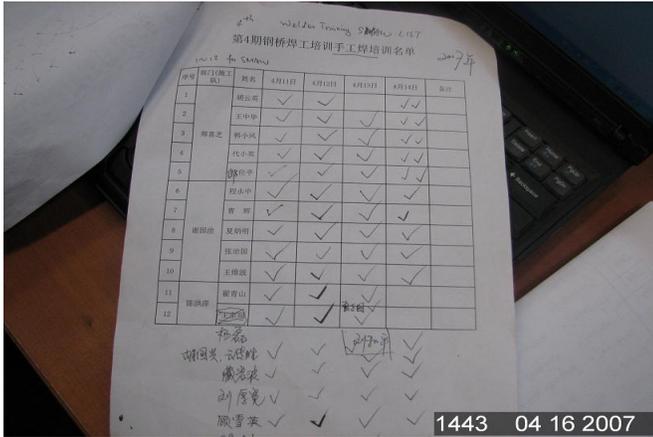
The QA inspector had a conversation with American Bridge/Flour Enterprises, a JV (ABF) representative Song Weimin. Mr. Song relayed to the QA inspector that Moody International had 46% rejection rate on 04/15/07 and 72% rejection rate on 04/16/07. A total of 37 welders were tested on 04-15-07 and 20 welders passed the test (FCAW-6, SAW-3 and SMAW-11). A total of 25 welders were tested on 04-16-07 and 7 welders passed the test (FCAW-7 and SMAW-0).

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The QA inspector had a conversation with ZPMC representative, Lu Jian Hua and ABF representative, Song Weimin. The QA inspector questioned if ZPMC provided further training to the welders and welding operators before retesting. ZPMC and ABF representatives showed the QA inspector documentation with evidence in which ZPMC appeared to be general compliance with the contract documents.

The photograph below shows records of the training provided by ZPMC to the welders and welding operators before retesting.



Summary of Conversations:

As noted above.

Note: See Task Leader Journal for this week.

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: Acuna, Alfredo

Quality Assurance Inspector

Reviewed By: McClary, David

QA Reviewer