

**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-002102**Date Inspected:** 04-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**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:** Hu Wei Qing & Sha Zhi**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:** Floor Beams**Summary of Items Observed:**

On this date, Caltrans Office of Structural Materials (OSM), Quality Assurance (QA) Inspector, David A. Smith was present for the observations related the following;

Bay-7 CWR, This Caltrans QA Inspector did visually monitor the dry powder Magnetic Particle Testing (MT) of ZPMC Level II MT technician Bo Tin Rui of the grind out areas on FB-008-03-001 and FB-008-06-001 as well as the cover pass on FB-025-02-welds 125, 126 & 127. No relevant indications were noted by the ZPMC technician during these tests.

Bay-7 SAW welding was observed being performed on FB-013-006-002, FB-004-005-002 and FB-004-005-020 by ZPMC welder Wang Min #048296. The WPS posted and being utilized was WPS-B-T-2221-B-L26-5-1. The CWI present was Hu Wei Qing as well as ABF CWI Liu Jin Ping. Welding parameters recorded by this QA Inspector were, Amps 503, Volts 30 and the Travel Speed (TS) was 450 mm/min.

Bay-8 SAW welder Ma Ying #045270 was observed welding WSD-1-SA32A/B-10B, 485 Material, 75MM thick using WPS-B-T-3221-B-U3C-S-1. Welding parameters recorded by this QA Inspector were, Amps 609, Volts 29.3, TS 475 mm/min. and the recorded temperature was noted to be 211c. The CWI present was Sha Zhi and the QC was Tuli Gao.

Bay-8 Plate ESD1-SA309-12A was being prepped for welding for SAW welder Xu Peipei #050323. The procedure to be utilized was WPS-B-T-3221-B-U3c-S-1 and the QC present was Zhang Qiao.

Bay-8 The gouging of Floor Plate FB-018-001 along the length including welds 125, 126 and 127. It was observed that some areas of the plate were completely gouged all the way through it's 14 mm thickness. Graig Hager was present during the afternoon and measured the depth of the gouged out areas to be approximately 11 mm. He had determined that once the gouged out areas had been ground down to good metal eliminating the carbon and other impurities it would leave approximately 1 to 2.5 mm of good metal to deposit weld to. The material being this thin

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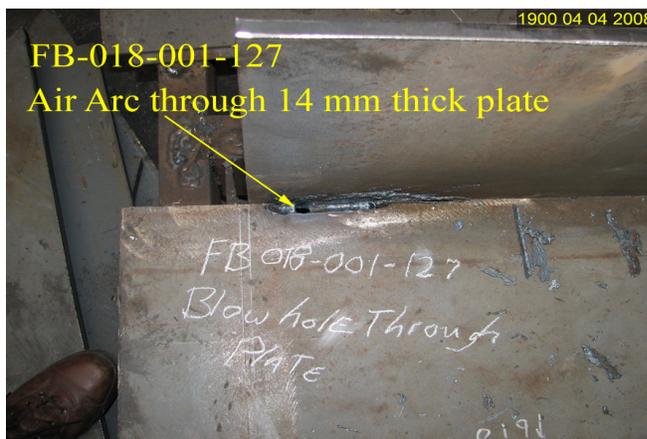
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would take very little heat to burn completely through creating other problems for the weld joint.



## Summary of Conversations:

There were no pertinent conversations pertaining to the project during this shift.

## 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:** Smith, David

Quality Assurance Inspector

**Reviewed By:** Hager, Craig

QA Reviewer