

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-001632**Date Inspected:** 23-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**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:** Wu Ming Kai, Chen Tai**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, WT Stiffeners**Summary of Items Observed:**

77m Mock-up

This Quality Assurance Inspector arrived at ZPMC for observation of the Self-Anchored Suspension (SAS) section for the SFOBB. This QA Inspector observed the Magnetic Particle (MT) inspection performed by ZPMC MT Technician Zhou Dong Yun for skin plate C weld numbers MUSA-MA1-E/F- 7 & 8 and MUSA-MA104-A/B-25 through 40. ZPMC discovered multiple linear indications that were ground and retested that were determined to be minor surface irregularities. During the grinding process of linear indications at the end of skin plate C were skin plate D intersect ZPMC personnel ground into the 90mm skin C area as shown in the digital photos below. The Area was measured by this QA inspector and was found to be 70mm long X 10mm wide X 10mm deep total length of grind with 44mm of the length was into the base material. This QA inspector spoke with ZPMC Chen Tan to discuss that this area would require an engineer's approval prior to repairing due to the being into the base material. The QC inspector informed this QA inspector that skin plate C could be ready for QA verification within the next couple days and they would inform QA when completed. The above work appeared to be within the general requirements of the contract documents.

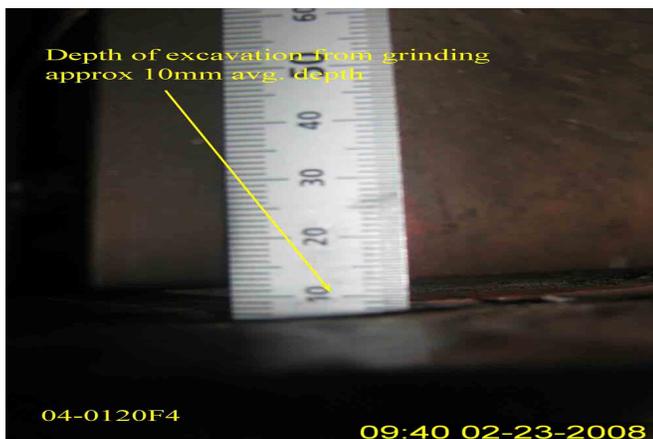
WT Stiffeners

This Quality Assurance (QA) inspector arrived at ZPMC for observation of the Self-Anchored Suspension (SAS) section for the SFOBB. This QA inspector observed ZPMC personnel performing base metal repairs in accordance with Critical Weld Repair (CWR) number B-CWR026 which required ZPMC to excavate the areas, perform Magnetic Particle (MT) inspection of the excavation once it was ground to a bright finish. Once soundness was determined ZPMC would proceed with the welding process. Welding Procedure Specification number WPS-345-SMAW-1G(1F)-Repair was observed being applied to the noted areas for repair on BP018-01-24 with 35 locations for repair. This QA inspector verified the welding parameters along with ZPMC QC/CWI Wu Ming

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Kai as follows; 164 amps, 22.6 volts and travel speed of 160mm/min which appeared to be within the above stated WPS. Preheat and interpass temperatures were monitored and appeared to be within the WPS. The above work appeared to be within the general requirements of the contract documents.



Summary of Conversations:

As noted in the contents 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.

Inspected By: Riley, Ken Quality Assurance Inspector

Reviewed By: Cochran, Jim QA Reviewer
