

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-006969**Date Inspected:** 05-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**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 and Tower Fabrication**Summary of Items Observed:**

CWI Inspector: Mr. Lin Yang

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Prior to Caltrans QA Inspectors' concurring with issuance of OBG deck plate closed rib green tag releases a review of the ultrasonic inspection database is performed to verify all closed rib tack weld repair locations have been ultrasonically accepted. Today this QA Inspector, Mr. Paul Dawson, performed data entry of ultrasonic inspection information from the field generated Ultrasonic inspection data sheets onto the common drive computer database for the following OBG deck panels: DP206-001, DP258-001, DP093-001, DP396-001, DP124-001, DP502-001, DP342-001, DP315-001, DP152-001, DP422-001, DP178-001, DP476-001, DP368-001, DP295-001, DP126-001, DP260-001, DP231-001 and DP179-001.

Outside Yard

ZPMC issued an "Inspection Notification Sheet" #2937 requesting QA to green tag Cross Beam CB1 and that various Side Plate and Base Plate welds are ready for ultrasonic inspections. This QA Inspector and Caltrans QA Inspectors Mr. Hall and Mr. Utekar performed ultrasonic inspections of various welds listed on the notification. This QA Inspector performed random ultrasonic inspections of the following welds: SP203-001-013,

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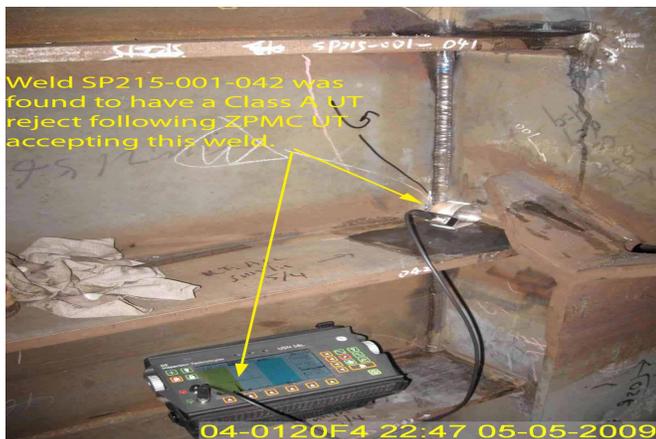
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SP203-001-031, SP203-001-032, SP203-001-045, SP203-001-046, SP213-001-023, SP213-001-024, SP213-001-029, SP213-001-030, BP209-001-039, BP209-001-041, BP209-001-046, BP209-001-047, BP207-001-023, BP207-001-031, SP211-001-023, SP211-001-031, BP207-001-032, BP207-001-023, BP207-001-031, BP207-001-032, BP211-001-021, BP211-001-028, BP211-001-037, BP211-001-048, BP211-001-041, BP211-001-046, BP211-001-047, BP211-001-039, SP215-001-045, SP215-001-046, SP215-001-059, SP215-001-060, SP215-001-041 and SP215-001-042*. All welds except SP215-001-042 appear to comply with project specifications and weld SP215-001-042 appears to have a class “A” (Rejectable) ultrasonic indication. All of these welds had previously been previously been ultrasonically inspected and accepted by ZPMC inspection personnel. This QA Inspector informed ZPMC QC representative Mr. Fu Yuhong that weld SP215-001-042 appears to be ultrasonically rejectable and Mr. Fu Yuhong informed this QA Inspector that there were no ZPMC ultrasonic Inspectors available to confirm this ultrasonic rejection, and he will inform the dayshift QC Inspectors to followup on this ultrasonic indication. This QA Inspector generated and forwarded an Incident Report to Task Leader Mr. Mahlon Lindenmuth. Items observed by this QA Inspector do not appear to fully comply with AWS D1.5 UT requirements. For additional information on these inspections see the TL6027 Ultrasonic Test Report and the photograph below.

Tower Bay 10

The QA Inspector observed ZPMC welder Ms. Hua Guimei, stencil 050295 is using welding procedure specification WPS-B-T-2221-B-U3C-S-2 to make submerged arc groove weld ESD1-A167-B/H-1A. The QA Inspector observed ZPMC Quality Control personnel monitoring this welding and the QA Inspector observed a welding current of approximately 670 amps and 32.0 volts. The QA Inspector observed ZPMC had preheated the base material using an electric heating element. Items observed on this date appeared to generally comply with applicable contract documents.

The QA Inspector observed ZPMC welder Ms. Hua Guimei, stencil 040460 is using welding procedure specification WPS-B-T-2221-B-U3C-S-2 to make submerged arc groove weld ESD1-A167-B/H-49A. The QA Inspector observed ZPMC Quality Control personnel monitoring this welding and the QA Inspector observed a welding current of approximately 660 amps and 33.0 volts. The QA Inspector observed ZPMC had preheated the base material using an electric heating element. Items observed on this date appeared to generally comply with applicable contract documents.



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Summary of Conversations:

See 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 Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
