

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-009213**Date Inspected:** 24-Sep-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 & Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. An Qing Xiang, Zhu Zhong Hai

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. This QA Inspector observed the following

Tower Bay 10

This QA Inspector observed ZPMC welder Mr. Wang Gong Zhi, stencil 050041 is using flux cored welding process WPS-B-T-4332-TC-P5-F to complete weld NSD1-FDSA4-3C/D-16. This QA Inspector observed ZPMC CWI Quality Control Inspector Mr. Xin Tao monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

Tower Bay 11

ZPMC issued "Inspection Notification Sheet" number 4281 informing QA that ZPMC has completed visual (VT), magnetic particle (MT) and ultrasonic inspections (UT) of west tower skin D interior splice plate welds WSD1-SPSA3-3-1, WSD1-SPSA3-3-2, WSD1-SPSA3-3-3, WSD1-SPSA3-3-4 and east tower skin B interior splice plate welds ESD1-SPSA3-63-1 and ESD1-SPSA3-63-2. This QA Inspector observed ZPMC QC personnel had previously marked these seven welds as being VT, MT and UT accepted. This QA Inspector performed

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random visual inspections of these welds and observed several weld surfaces that have arc strikes and areas where adjacent weld passes were not smoothly transitioned together, leaving a shallow linear shaped trough in the surface of the welds. This QA Inspector showed ZPMC CWI Mr. An Qing Xiang several of these areas and Mr. An Qing Xiang marked these and several additional areas. A ZPMC worker used an electric grinder to blend or remove the visual rejections. It appears that ZPMC ground various locations on all six of the welds listed above. This QA Inspector informed Mr. An Qing Xiang that ZPMC needs to perform magnetic particle inspections of the areas that have been ground. Mr. An Qing Xiang said that ZPMC does not have any magnetic particle inspectors available to perform MT inspections this shift and that ZPMC will perform MT inspections tomorrow during the day shift. This QA Inspector also informed ZPMC QC representative Mr. Zhang Jidai that these ground areas require magnetic particle inspections. This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of each of the six welds listed above and items observed by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspections see the TL6027 Ultrasonic Test Report.

OBG Bay 14

This QA Inspector observed ZPMC stencil 215587 is using shielded metal arc welding procedure WPS-B-P-2211-B-U2-FCM-1 to make tack weld SEG068*-007. The QA Inspector observed a welding current of approximately 150 amps. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.



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

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Reviewed By: Carreon,Albert

QA Reviewer