

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-004889**Date Inspected:** 24-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2200**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island, Shanghai**CWI Name:** Lili Ming**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 components**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) representative was present for observations relative to fabrication performed by Zhenhua Port Machinery Company (ZPMC) for the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Changxing Island, in Shanghai, China. While on site the QA Inspector noted the following:

Part #: WSD1- SA80B/E, WSD1- SA49C/D

1. The QA Inspector performed a random Visual (VT) and Ultrasonic Testing (UT) verifications on the Complete Joint Penetration (CJP) butt splice welds identify as weld number: WSD1- SA80B/E- 11 thought 13 and 24 on inspection part WSD1- SA80B/E for tower section LIFT 1 SKIN D. WSD1- SA49C/D- 19B and 6B on inspection part WSD1- SA49C/D for tower section LIFT 1 SKIN B. Please refer to ZPMC Non Destructive Examination (NDE) notification document number 001484 item numbers 7 and 8 for additional information. The QA Inspector performed the UT verification after ZPMC QC Inspectors reported the welds to be acceptable and ready for verification. The QA Inspector did not observe any rejectable welding discontinuities on any of the verified welds mentioned above. The QA Inspector notified ZPMC QC Inspection personnel and Lead QA Inspector Paul Dawson of the QA Inspector verification results. Please see the QA Inspector Ultrasonic Test report (TL 6027) generated on this date for additional information.

Part #: WSD1- SA77A/E

2. The QA Inspector performed a random VT and UT verifications on the CJP butt splice weld identify as weld

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number: WSD1- SA77A/E-46A/B on inspection part WSD1- SA77A/E for tower section LIFT 1 SKIN C. Please refer to ZPMC Non Destructive Examination (NDE) notification of witness inspection document number 001483 item numbers 5 for additional information. The QA Inspector performed the UT verification after ZPMC QC Inspectors reported the weld to be acceptable and ready for verification. The QA Inspector did not observe any rejectable welding discontinuities on the verified weld. The QA Inspector notified ZPMC QC Inspection personnel and Lead QA Inspector Paul Dawson of the QA Inspector verification results. Please see the QA Inspector Ultrasonic Test report (TL 6027) generated on this date for additional information.

Part #: FB023-004

3. The QA Inspector performed a random visual and UT verifications on a weld repaired area made on a CJP tee joint weld identified as FB023-004-127 on inspection part FB23 for the OBG section. Please refer to the ZPMC NDE notification of witness inspection document number 001481 item number 2 for additional information. The QA Inspector performed the UT verification after ZPMC QC Inspectors reported the weld to be acceptable and ready for verification. The QA Inspector observed one rejectable welding discontinuity indication located on the top quarter of the weld not reported by QC Inspection personnel. The QA Inspector notified and showed the rejectable indication to QC Inspection personnel. The QC Inspector Lili Ming performed UT verification at this location and during verification the QC Inspector Lili Ming relayed to QA Inspector the indication was rated to be a class B not rejectable by length. The QA Inspector requested QC Inspector to verify the calibration sensitivity because the QA Inspector was rating that indication to be a class A rejectable regardless of length. The QC Inspector Lili Ming verified his sensitivity level originally reported to be 38 decibels (using an IIW block) in the presence of QA Inspector and Lead QA Inspector Paul Dawson. The QC Inspector Lili Ming reported that he was scanning 4 decibels below from his original reference testing level. After sensitivity was verified the QC Inspector confirmed the indication was rejectable rating the indication a class A and relayed ZPMC will perform weld repair at this location. The QA Inspector notified Lead QA Inspector Paul Dawson of the status of UT verification. Please see the QA Inspector Ultrasonic Test report (TL 6027) generated on this date for additional information

Part #: ESD1-SA376D/E, ESD1-SA376E/E.

4. The QA Inspector was requested to perform UT verification on the complete joint penetration welds made on component members on inspection part ESD1-SA376D/E and ESD1-SA376E/E for the tower section. At the time of arrival at the heavy shop number 2 the QA Inspector could not locate the inspection part and requested ZPMC QC Inspection personnel to provide support to find these welds. ZPMC QC Inspection personnel notified the QA Inspector the requested welds could not be verified at this moment due to the fact that the QC Inspection personnel have not completed the UT inspections as of this time and in addition to the uncompleted QC Inspection testing the inspection part was upside down making the UT verification not accessible. Please refer to the ZPMC notification of witness inspection document number 001483 item numbers 3 and 4 for additional information.

Summary of Conversations:

As noted in the body of the report 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 Peter Dautermann, (1500) 129-9593, who represents the Office of Structural Materials for your project.

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Inspected By:	Medina,Ricardo	Quality Assurance Inspector
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Reviewed By:	Carreon,Albert	QA Reviewer
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