

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-004238**Date Inspected:** 09-Oct-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

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|------------------------------------|------------|----------------------------------|-----------------|----|
| CWI Name: | NA | 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 Fabrication | |

Summary of Items Observed:

Caltrans 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:

OBG Bay 1

At 1842 hours ZPMC QC representative Mr. Shen Xue Jun presented "The notification of witness inspection" document number 001164 to QA personnel. This document states ZPMC is going to perform ultrasonic inspections of OBG U-rib diaphragm plate welds on deck plate DP575-001 today starting at 1930 hours in bay 1. At around 1915 hours the QA Inspector arrived in bay 1 with the intent of performing ultrasonic inspection these same welds and no ZPMC ultrasonic inspectors were observed to be working in this bay. At around 1935 ZPMC QC representative Mr. Fu Yuhong arrived in bay 1 and he stated ZPMC had listed the incorrect time of the ultrasonic inspections and that ZPMC UT Inspectors had completed the ultrasonic inspections of OBG U-rib diaphragm plate welds for deck plate DP575-001 at 1900 hours and the U-ribs are now installed and are being tack welded on the side plate. Mr. Fu Yuhong said that "The notification of witness inspection" document number 001164 should have stated a time of 1900 hours instead of 1930 hours. Mr. Fu Yuhong asked the QA Inspector if ZPMC needs to stop installation of the U-ribs and remove the U-ribs to allow QA to perform ultrasonic inspections of the welds. The QA Inspector informed Mr. Fu Yuhong that in order to prevent a slowdown of production that installation of the U-ribs should continue.

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OBG Bay 1

The QA Inspector performed random AWS D1.5 ultrasonic inspections of the following OBG closed rib splice welds:

DP310-001-007

DP310-001-008

DP310-001-009

ZPMC Inspection personnel had previously ultrasonically inspected and accepted these welds. Items observed appear to comply with project specifications. See the TL6027 ultrasonic test report for additional information.

Heavy Bay 1

The QA Inspector performed random AWS D1.5 ultrasonic inspections of the following tower component welds:

NSD1-SA180A/E-43A/B R1

NSD1-SA179D/E-19A/B R1

ZPMC Inspection personnel had previously ultrasonically inspected and accepted these welds. Items observed appear to comply with project specifications. See the TL6027 ultrasonic test report for additional information.

OBG Bay 3

The QA Inspector performed random AWS D1.5 ultrasonic inspections of the following OBG side plate stiffener splice butt welds:

SP481-001-058 and SP481-001-060. ZPMC is required to perform 25 percent of these welds and ZPMC has performed ultrasonic inspections of 100% length of these two welds instead of 25% length of welds 13, 50, 52, 54, 56, 58, 60 and 62.

SP533-001-058 and SP533-001-060. ZPMC is required to perform 25 percent of these welds and ZPMC has performed ultrasonic inspections of 100% length of these two welds instead of 25% length of welds 13, 50, 52, 54, 56, 58, 60 and 62.

ZPMC Inspection personnel had previously ultrasonically inspected and accepted these welds. Items observed appear to comply with project specifications. See the TL6027 ultrasonic test report for additional information.

Bay 8

The QA Inspector performed random AWS D1.5 ultrasonic inspections of the following OBG floor beam welds: FB021-003-117 and FB021-003-122. ZPMC is required to perform 50 percent of these welds and ZPMC has performed ultrasonic inspections of 100% length of these two welds instead of 50% length of welds 101, 108, 117 and 122.

ZPMC Inspection personnel had previously ultrasonically inspected and accepted these welds. Items observed appear to comply with project specifications. See the TL6027 ultrasonic test report for additional information.

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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 Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

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| Inspected By: | Dawson,Paul | Quality Assurance Inspector |
| Reviewed By: | Carreon,Albert | QA Reviewer |
