

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017303**Date Inspected:** 05-Oct-2010**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**Summary of Items Observed:**

CWI Inspector: Mr. Shi Lei.

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:

OBG Trial Assembly:

ZPMC submitted "NDT Inspection Notification sheet" Document #6866 requesting MT and VT inspections of "T" rib and "I" rib hold back welds adjacent to the weld joints between OBG segments 10CW and 11AW. This QA Inspector completed magnetic particle inspection (MT) of approximately 15% of areas previously tested by ZPMC personnel".

The following welds were inspected:

OBG10CW:

EP118-001-9,10; EP135-001-21,22; DP677-001-13,14; DP693-001-16,17; SP662-001-27,28,29,30; SP112-001-41, 42; SP139-001-27, 28, 35, 36; SP166-001-29,30; SP779-001-49,50; SP739-001-49,50; SP501-001-42,43,48,49; SP679-001-25,26; BP104-001-41,42,45,46; BP050-001-41,42; BP158-001-47,48.

OBG11AW:

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DP678-001-11,12; DP691-001-09,10; SP663-21,22,23,24; SP113-001-13,14; SP140-001-03,04,11,12;
SP167-001-05,06; SP780-001-07,08; SP740-001-07,08; SP502-001-07, 08,13,14; SP680-001-25,26;
BP105-001-33,34, 36,38; BP051-001-35,36; BP159-001-41,42; EP119-001-05,06; EP136-001-05,06.

This QA Inspector visually observed the following:

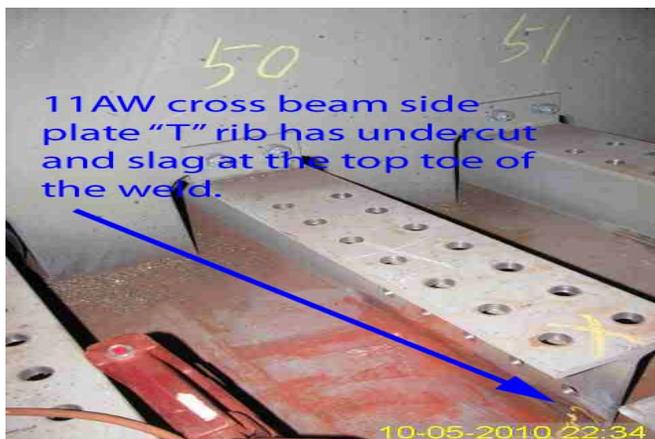
Two “T” ribs on the counterweigh corner assembly have arc strikes on the top edges of the ribs. These areas were shown to ZPMC CWI Mr. Shi Lei, who said these will be removed and MT inspected at a later time. See the photograph below for additional information.

Many of the “T” ribs on both OBG segment 10CW and 11AW side plates and the bottom plates have “T” rib welds that do not extend to the end of the ribs and or the ends of the welds have overlap and other visual rejectable conditions. ZPMC CWI Mr. Shi Lei said ZPMC cannot easily grind these areas and that ZPMC will grind and or weld the terminations when 10CW is moved away from 11AW. See the photograph below for additional information.

most of the “T” ribs on 10CW cross beam side plates have “T” rib welds that were flame cut on the ends of the ribs. ZPMC CWI Mr. Shi Lei said ZPMC will grind the flame cut ends when 10CW is moved away from 11AW. See the photograph below for additional information.

One of the “T” ribs on 11AW cross beam side plates has a weld with underfill / slag for a length of approximately 10 mm at the top toe of the weld. This “T” rib had been identified by ZPMC as rib #50. See the photograph below for additional information. ZPMC commenced grit blasting of OBG segment 10BW and due to poor air quality, this visual rejection was not shown to ZPMC CWI Mr. Shi Lei.

At approximately 2200 hours ZPMC CWI Mr. Shi Lei informed this QA Inspector that no ZPMC personnel were welding OBG components in the trial assembly.



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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
Reviewed By: Carreon,Albert

Quality Assurance Inspector
QA Reviewer
