

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012283**Date Inspected:** 21-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**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 Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 7BW to 7CW (T-Ribs) Caltrans QA Survey Inspection

This QA Inspector along with Caltrans QA Mr. Vikram Singh performed Individual Inspection for the T-Ribs to T-Ribs between Segment 7BW to 7CW (Shop Segment Splice) between Panel Point (PP) 52 and PP 53 North (Counter Weight Side total 19 Nos. T-Ribs) and South (Cross Beam side Total 19 Nos. T-Ribs) and at Bottom Panel (Total 18 Nos. T-Ribs) for Horizontal and Vertical Offset. The measured readings were recorded on spread sheet, generated the report and submitted to the Task Leader and Engineer for review, for more comprehensive details please refer the pictures attached below.

Segment 6BE and 6CE

This QA Inspector performed Individual Inspection against the Punch List Sr. No. 340, Incident Report 998 Dated Dec 15, 2009 raised against Flatness Survey for Side Panel to Side Panel Corner Assembly at Cross Beam side between Segment 6BE to 6CE (Shop Segment Splice) between Panel Point (PP) 43 and PP 44. As per the Incident

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

Report it was been observed that Transverse Splice to Horizontal Weld of Corner Assembly earlier was deformed by 7mm when measured by 600 Straight edge, acceptable range 5mm.

The location was inspected by the QA and confirmed that as on date still 7mm deformation is evident and ZPMC has not fixed the issue. The Caltrans Lead Inspector was been notified for further action.

Segment 5AW and 5BW

This QA Inspector performed Inspection against the Punch List Sr. No. 388, for the Incident Report 1100 Dated Jan 10, 2010 raised against Flatness Survey for Edge Panel I Stiffener weld joint EP043-001-015 Cross Beam side was deformed between Segment 5AW to 5BW (Shop Segment Splice) between Panel Point (PP) 31 and PP 32. As per the Incident Report it was learned that the Edge Panel I- Rib was deformed by 8mm when measured by 2500mm String Line and 6mm when measured by 600mm Straight edge, acceptable range is L/480mm i.e., 5.2mm.

The location was inspected by the QA Inspector and confirmed 3mm. The Caltrans Lead Inspector was been notified for further action.

Segment 5BE and 5CE

This QA Inspector performed Individual Inspection against the Punch List Sr. No. 208, Incident Report 727 Dated Sep 10, 2009 raised against Flatness Survey for T-Ribs to T-Ribs web weld between Segment 5BE to 5CE (Shop Segment Splice) between Panel Point (PP) 34 and PP 35. As per the Incident Report it was been observed that T-Rib to T-Rib web weld was misaligned by 5mm, acceptable range is 3mm.

The location was inspected by the QA and confirmed 4mm as on date for the 6th T-Rib from the Longitudinal Diaphragm Bike Path side and it was evident that ZPMC had not fixed the issue. The Caltrans Lead Inspector was been notified for further action.

Segment 5CW and 6AW

This QA Inspector performed Individual Inspection against the Punch List Sr. No. 343, Incident Report 983 Dated Dec10, 2009 raised against Heat Straightening for the T-Ribs at Side Panel Counter Weight side for the 3rd, 4th and 5th T-Rib between Segment 5CW to 6AW (Field Segment Splice) between Panel Point (PP) 36 and PP 37. As per the Incident Report it was been observed that T-Rib to T-Rib Heat Straightening was not performed as per the Heat Straightening procedure as ZPMC had used Jacks at Web to Web location.

The location was inspected visually as dimension confirmation/measurements cannot be performed as Segments have been moved apart thus visual inspection for Segments been performed and confirmed for trueness. The Caltrans Lead Inspector was been notified for further action.

7AW to 7BW

This QA Inspector observed ZPMC welding personnel performing welding by Shielded Metal Arc Welding (SMAW) for I-Ribs to I-Ribs Side Panel Corner Assembly Cross Beam side after back gouging till the sound weld. The weld joint was identified as SP429-001-032 and SP429-001-033. The welder was identified as 068917. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e.,

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

WPS-B-P-2214-B-U2-FCM-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

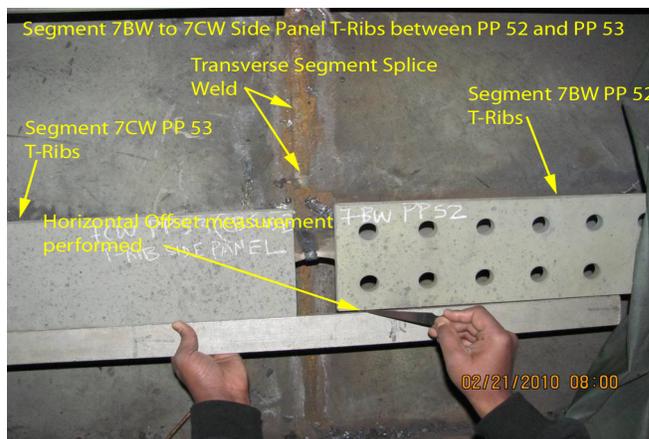
7AW to 7BW

This QA Inspector observed ZPMC welding personnel performing welding by Shielded Metal Arc Welding (SMAW) for I-Ribs to I-Ribs Side Panel Corner Assembly Counter Weight side after back gouging till the sound weld. The weld joint was identified as SP437-001-034 and SP437-001-035. The welder is identified as 069683. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-B-U2-FCM-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

6BW

This QA Inspector observed ZPMC welding personnel performing repair welding by Shielded Metal Arc Welding (SMAW) for Counter Weight Connection Plate. The weld joint was identified as OBW6F-006. The welder is identified as 070101. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231-Tc-U4b-FCM-Repair-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No relevant conversations.

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 T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer