

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-010840**Date Inspected:** 24-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** As identified 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:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Larry Viars was present during the times noted above for observations relative to the work being performed.

North of Bay 14-

Caltrans Quality Assurance (QA) Inspector performed random visual inspection of OBG segment 7DW welds. During visual inspection Caltrans QA observed distortion of FL2-1 flange two (2) Longitudinal Linear Indications (LLI) were observed on sub-assembly floor beam FB003-035 flange to web 6 mm fillet welds, FB003-035-004 (LLI-170mm in length) and FB003-035-005 (LLI-140mm in length). The "Y" location of both indications, measured from the W4 line is approximately 4130mm. The indications were discovered visually and confirmed by Magnetic Particle Testing (MT) by Caltrans QA. Caltrans QA also observed negative flange distortion measuring approximately 15mm in 7200mm. This negative distortion appears to have been produced by the deck panel diaphragm Complete Joint Penetration (CJP) weld identified as SSD10-PP56-003 on the far side of this flange. This CJP weld has a reinforcing fillet weld measuring approximately 20mm. An Incident Report was issued for the longitudinal linear indications. Please see the attached digital photographs below of the longitudinal linear indications.

NOTE: Weld SSD10-PP56-003 was originally designed as two (2) 8mm fillet welds. The weld was changed to a CJP during segment fabrication due to a joint root opening in excess of 5mm.

Bay 14-

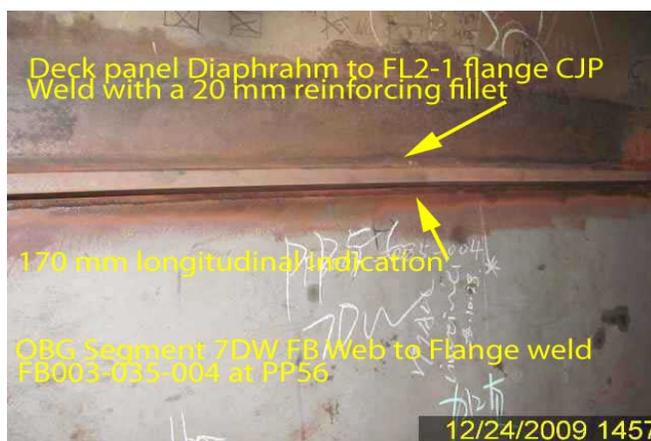
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This QA Inspector observed the following work in progress: Submerged Arc Welding (SAW) of OBG Segment 12AE bottom panel BP3001A to BP3002A Complete Joint penetration (CJP) welds, SEG3001A-008. ZPMC welder was identified as 044771. ZPMC QC is identified as Zhong Guo Hui. ZPMC CWI was identified as Lv Li Qing. The welding appeared to be in conformance with welding procedure specification, WPS-B-T-2221-B-L2c-S-2.

Flux Cored Arc Welding (FCAW) of OBG Segment 11DE deck panel diaphragm to U rib welds, DP484-001-100 and 105. ZPMC welder was identified as 048038. ZPMC QC is identified as Zhong Guo Hui. ZPMC CWI was identified as Lv Li Qing. The welding appeared to be in conformance with welding procedure specification, WPS-B-T-2233-TC-U4b-F.

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



Summary of Conversations:

As identified within the contents of this report.

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, 150 0042 2372, who represents the Office of Structural Materials for

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your project.

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| Inspected By: | Viars,Larry | Quality Assurance Inspector |
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| Reviewed By: | Dawson,Paul | QA Reviewer |
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