

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-004759**Date Inspected:** 11-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China**CWI Name:** Zhu Zhong Hai**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**Summary of Items Observed:**

Welder Re-Qualification

This QA Inspector was informed by ABF that ZPMC welder Bai Wenming # 040434 has had a high reject rate for CJP and repair welds. ABF has informed ZPMC that the above welder is not to perform welding on CJP welds and repairs which also include all welds that will require NDT inspection (UT or RT). ABF will be watching for this welder and if he is welding they will submit a NCR to ZPMC. ABF has requested this welder to be re-trained and re-tested before continuing with CJP weldments.

Tower Shop Bay 3

The QA Inspector randomly observed ZPMC personnel performing grinding of repairs for the Orthotropic Box Girder (OBG) deck panel Partial Joint Penetration (PJP) welds. This QA inspector along with ZPMC and ABF personnel performed the 3 party initial visual inspections. All 3 parties agreed on the areas to be repaired and ZPMC continued working on these locations. The yellow ABF tracking tag affixed to the deck panel was signed by all 3 parties. The deck panels inspected were DP333-001. Certified Welding Inspector for ZPMC was present at this location for the monitoring of the deck repairs and inspection. Also noted in bay 3 to monitor deck panel repairs were ABF personnel Kevin Chen and Wang Wei.

OBSERVATIONS

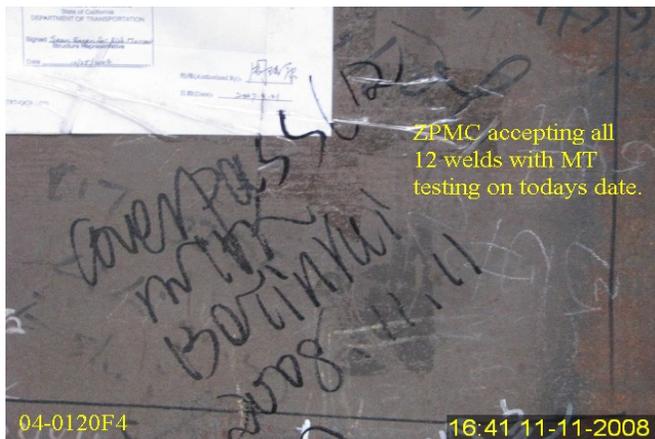
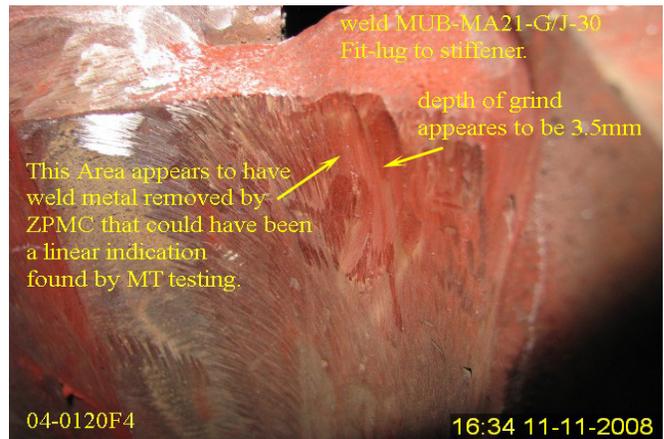
89M mock up

Caltrans QA Inspector observed that ZPMC had completed the 89M mock up weld trials for stiffener to fit-lug and diaphragm to fit-lug welds. The weld trials had consisted of several different configurations throughout the process that consisted of increasing the fit-lug widths from 75mm to 150mm, using the high nickel electrode E7018 C3L

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H4R and using a small 10mm bevel for the root pass. ZPMC is still in the process of completing the NDT for the 48hr and 72hr MT testing for the MUB-MA21-G/J welds (which this QA Inspector was informed by ABF that this side [MUB-MA21-G/J] is not weld trials for ABF they are for ZPMC only due to not following the new weld trial procedure provided by ABF as stated before). The last test results at these locations were hand written on the diaphragm with all 12 welds being reported as acceptable. This Caltrans QA Inspector did observe that ZPMC had removed weld metal after MT was performed and accepted on welds MUB-MA21-G/J-30 and MUB-MA21-G/J-65. The weld metal removed appears to be from a grinder on these welds specially weld number 65 were it appears that a small cone grinder was used. This could be from linear indications noted from ZPMC but am unsure of the correct status. The digital photos below show the areas noted above and the dishing created from the grinding effort.



Summary of Conversations:

As noted 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 Josh Ishibashi, 1-376-471-0411, who represents the Office of Structural Materials for your project.

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Inspected By:	Riley, Ken	Quality Assurance Inspector
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Reviewed By:	Carreon, Albert	QA Reviewer
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