

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-010421**Date Inspected:** 18-Nov-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:** Liu Fawen**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:** Orthotropic Box Girder Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance (QA) Inspector, Sandeep Kumar was present during the times noted above for observations relative to the work being performed.

BAY 1

This QA Inspector observed the following work in progress:

Flux Core Arc Welding:

This process welding of weld joint # 001 located on Counter Weight CW001A – PP 048. Welder is identified as 059450. ZPMC QC is identified as Xiang Feng Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

BAY 2

This QA Inspector observed the following work in progress:

Flux Core Arc Welding:

This process welding of weld joint # 093 located on Floor Beam FB3031 – 001. Welder is identified as 045240. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

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This process welding of weld joint # 011 located on Longitudinal Diaphragm LD001– 050. Welder is identified as 045203. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

This process welding of weld joint # 126 located on Floor Beam FB3039 – 001. Welder is identified as 045209. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4b – F.

This process welding of weld joint # 011 located on Longitudinal Diaphragm LD003– 062. Welder is identified as 045203. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

This QA Inspector observed the following work not in compliance:

During random in-process visual inspection on Orthotropic Box Girder Floor Beams in Bay # 2, this Caltrans Quality Assurance (QA) Inspector observed ZPMC personnel performing Shielded Metal Arc Welding (SMAW) repair of weld joint identified as Complete Joint Penetration (CJP) SEG3001L-PP111-008. Welding was observed being performed in the 3G position with a vertical downward progression which does not comply with the applicable repair Welding Procedure Specification WPS-345-SMAW-3G (3F)-Repair.

Applicable reference:

AWS D1.5 2002 section 4.6.8: “The progression for all passes in the vertical position shall be upward, unless a downward progression is qualified by tests approved by the Engineer”.

Approved Repair WPS # WPS-345-SMAW-3G (3F)-Repair: “Welding Progression – Vertical – Up Direction”

This QA notified ZPMC CWI identified as Mr.Chen Xi and ABF inspector identified as Mr. Luo Gui Lin of the above issue and that an incident report will be generated.

See attached photos for further details

BAY 5

This QA Inspector observed the following work in progress:

Flux Core Arc Welding:

This process welding of weld joint # 008 located on Traveler Rail TR1D – PP033. Welder is identified as 204342. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4c – F.

This process welding of weld joint # 002 located on Traveler Rail TR6A – PP034. Welder is identified as 215078. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – Tc – U4c – F.

This process welding of weld joint # 004 located on Traveler Rail TR6B – PP030. Welder is identified as 217185.

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ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4c – F.

This process welding of weld joint # 006 located on Traveler Rail TR5C – PP035. Welder is identified as 205390. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – Tc – U4c – F.

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 Tsang - 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Kumar,Sandeep

Quality Assurance Inspector

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Reviewed By: Hall,Steven

QA Reviewer