

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018107**Date Inspected:** 11-Nov-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:** Ye Yong Jun**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 & OBG Components**Summary of Items Observed:**

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

TOWER JETTY

This QA Inspector observed the following work not in compliance:

Description of Incident:

During the Caltrans Quality Assurance (QA) in-process observation on Lift-4 tower shafts, this QA Inspector discovered the following issues:

- After Ultrasonic Testing (UT) rejection of backfill plate welds by ZPMC quality control personnel, ZPMC fabrication personnel removed a total four (4) Non-SPCM welds without engineer notification.
- The Non-SPCM welds are Butt-Joint Complete Joint Penetration (CJP) welds joining backfill plate to doubler plate.
- These welds measured to be approximately 330 mm in length.
- Backfill plate thickness is 50 mm.

- 1) North Shaft - NSD1-FASA4-1B/E#14
- 2) North Shaft - NSD1-FASA4-1B/E#17
- 3) East Shaft - ESD1-FASA4-2B/E#26
- 4) East Shaft - ESD1-FASA4-2B/E#27

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- The whole length of the Non-SPCM welds has been removed.
- The components are located at Tower Heavy Dock.

Applicable reference:

AWS D1.5 2002 Section 3.7.5: “The Engineer shall be notified before improperly fitted and welded members are cut apart”.

For further information, please see the attached pictures below.

BAY#10

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#10

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 080 located on Bike Path, BK004A6 – 026. Welder is identified as 057258. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – P4 – F.

Shielded Metal Arc Welding (SMAW):

Weld joint # 034 located on Bike Path, BK004A5 – 028. Welder is identified as 040268. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2213 – B – U2a – 1.

Weld joint # 034 located on Bike Path, BK004A5 – 028. Welder is identified as 500363. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2213 – B – U2a – 1.

BAY#11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 6B located on Lift-5 bracket SD1 – BRSA5 – 1. Welder is identified as 044541. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 – TC – U5b.

Weld joint # 17A located on Lift-5 bracket ND1 – BRSA5 – 2. Welder is identified as 040724. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U5b.

Weld joint # 6B located on Lift-5 bracket SD1 – BRSA5 – 1. Welder is identified as 045560. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 – TC – U5b.

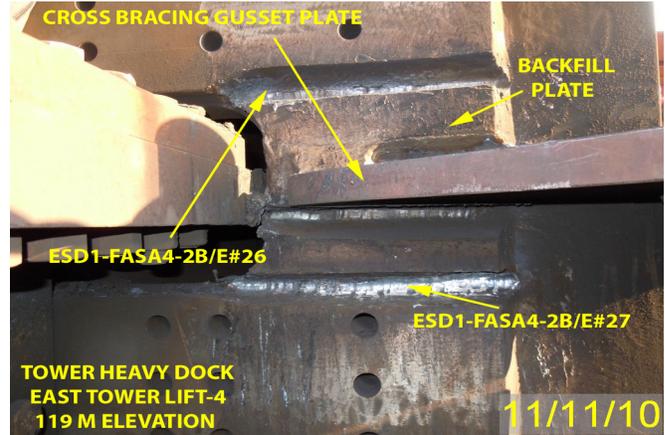
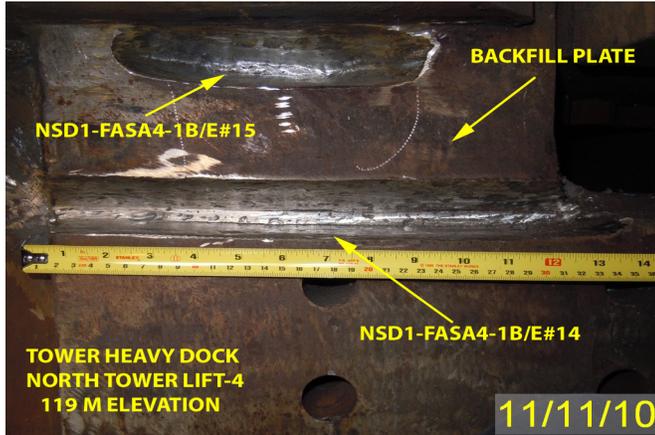
Fluxcored Arc Welding (FCAW):

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Weld joint # 04 located on Lift-6 Tower Head of skin 'E' WSD1 – FESA6 – 4. Welder is identified as 042218. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

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 Thomas Ho- 15002048250, who represents the Office of Structural Materials for your project.

Inspected By: Kumar,Sandeep

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer