

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-018373**Date Inspected:** 23-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: Yu Dong Ping
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: 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.

BAY#10

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 03 located on Lift-6 Tower Head SSD1 – FASA6 – 1. Welder is identified as 057258. ZPMC Quality Control (QC) Inspector is identified as Guo Yan Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Weld joint # 09 located on Lift-6 Tower Head SSD1 – FASA6 – 1. Welder is identified as 052075. ZPMC Quality Control (QC) Inspector is identified as Guo Yan Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#10

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 44 located on Bike Path BK004A1 – 033. Welder is identified as 040458. ZPMC Quality Control

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(QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – B – U2 – F.

Weld joint # 43 located on Bike Path BK004A1 – 033. Welder is identified as 040533. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4c – F.

Weld joint # 44 located on Bike Path BK004A1 – 033. Welder is identified as 047353. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – B – U2 – F.

Weld joint # 43 located on Bike Path BK004A1 – 033. Welder is identified as 053869. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4c – F.

Shielded Metal Arc Welding (SMAW):

Repair welding of weld joint # 10 located on Bike Path BK004A3 – 031. Welder is identified as 500363. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 1G (1F) – REPAIR.

Weld joint # 124 located on Bike Path BK004A8 – 029. Welder is identified as 052493. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2114.

Repair welding of weld joint # 02 located on Bike Path BK004A3 – 031. Welder is identified as 500363. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 1G (1F) – REPAIR.

Weld joint # 27 located on Bike Path BK004A8 – 029. Welder is identified as 052493. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2113.

BAY#11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Repair welding of weld joint # 6A/B located on Lift-5 bracket ND1 – BRSA5 – 2 as per the weld repair report #T-WR3772. Welder is identified as 044541. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – Repair – 1.

Fluxcored Arc Welding (FCAW):

Weld joint # 07 located on Lift-6 Tower Head ESD1 – FDSA6 – 2. Welder is identified as 046769. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Lang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

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Weld joint # 02 located on Lift-6 Tower Head WSD1 – FC6A – 4. Welder is identified as 042218. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Lang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

This QA Inspector observed the following work not in compliance:

Description of Incident:

During Caltrans QA in process observations of the fabrication of Bike path: BK008A-002, this QA discovered the following issue(s):

ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager / McQuaid)

The following requirements were not followed:

2. Assembly

A B C D E F G H I J K L M

X

NOTE: The above tables are relative to sections 2 ~ 6 of the NEW WELD PROCEDURE (Rager / Mc Quaid) and the corresponding paragraph letters.

The weld is identified as BK008A3-002-026.

The tack welding process used was Shielded Metal Arc Welding (SMAW).

The area was being preheated using gas torch.

The weld is a fillet tack weld joining stringer plate (BKX14A) to deck plate (BKPL17A).

The weld is not SPCM.

This component is located at fabrication Bay#11.

Applicable reference:

NEW WELD PROCEDURE (Rager / McQuaid)

2. Assembly.

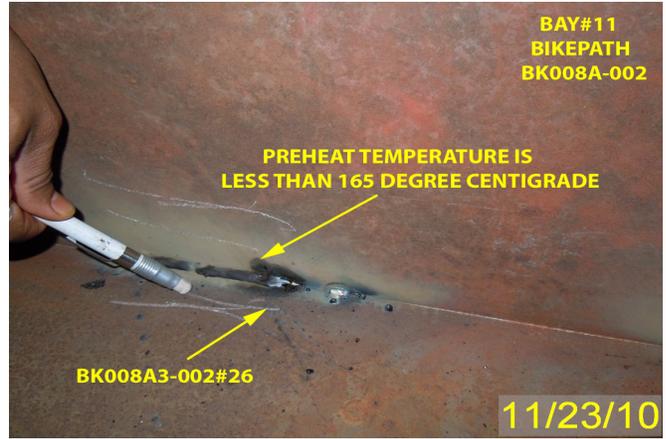
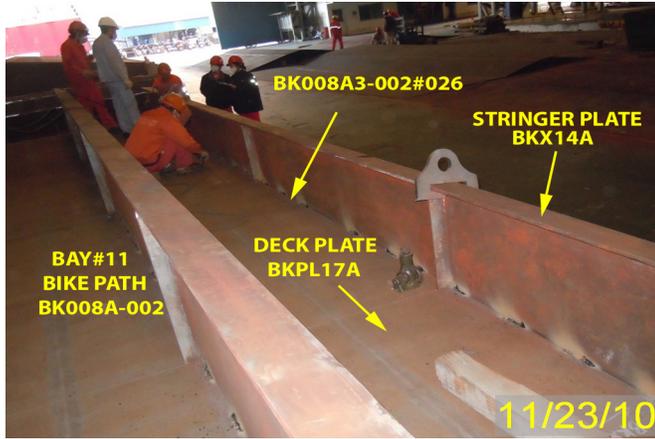
F. Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165°C.

For further information see the below attached pictures:

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

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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