

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-018966**Date Inspected:** 15-Dec-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:** Zhu Feng**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.

BAY#10

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007786

Magnetic Particle Testing (MT)

This QA inspector performed MT of the area previously tested and accepted by ZPMC Quality Control personnel.

This QA Inspector generated an MT report for this date. The member is identified as TOWER Component. The weld designation reviewed as follows:

EAST TOWER – LIFT-4 FAÇADE CONNECTION PLATE – GREEN TAG#13932

NSD1 – FASA4 – 1B/E – 3 – 27; 28

NSD1 – FASA4 – 1B/E – 4 – 27; 28

NSD1 – FBSA4 – 1A/C – 72; 78

NSD1 – FESA4 – 3D/F – 01; 02

NSD1 – FESA4 – 3C/F – 06; 07; 13; 14

NSD1 – FDSA4 – 3C/D – 36; 48; 69; 81

BAY#11

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The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007784

Magnetic Particle Testing (MT)

This QA inspector performed MT of the area previously tested and accepted by ZPMC Quality Control personnel.

This QA Inspector generated an MT report for this date. The member is identified as TOWER Component. The weld designation reviewed as follows:

WESR TOWER – LIFT-4 ELEVATOR BRACKET – GREEN TAG#13933

Z69-0-D/F-56-1-W

Z69-0-D/F-55;56-2-W

This QA Inspector observed the following work in progress

Flux Cored Arc Welding (FCAW):

Weld joint # 32 located on Bike Path BK0041 – 056. 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 – 2312 – ESAB.

Weld joint # 33 located on Bike Path BK0041 – 056. Welder is identified as 040704. 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 – 2312 – ESAB.

BLAST SHOP#1

This QA Inspector observed the following work in progress

During the Internal post-blast visual inspection on East tower Lift-4 from 131 M diaphragm (TOP) to 146 M elevation, this Quality Assurance Inspector's (QA) discovered the defects required welding and Magnetic particle testing on weld and base material at the following locations:

- 1) Skin 'D' – Porosity –Diaphragm to skin weld at 143 M (bottom) elevation between 1st and 2nd stiffeners from skin 'E'.
- 2) Skin 'D' – Cluster of Porosity –Diaphragm to skin weld at 143 M (bottom) elevation between 1st and 2nd stiffeners from skin 'C'.
- 3) Skin 'E' – Arc gouge –Diaphragm to skin weld at 139 M (bottom) elevation close to A/E corner cope hole.
- 4) Skin 'A' – Cluster of porosity –Diaphragm to skin weld at 139 M (bottom) elevation close to A/E corner.
- 5) Skin 'D' – Base material arc gouge –Edge of the 1st stiffener from skin 'C' and 520 mm from at 139 M bottom diaphragm.
- 6) Skin 'A' – Base material arc gouge –Edge of the 1st stiffener from skin 'B' and 890 mm from at 139 M bottom diaphragm.
- 7) Skin 'D' – Cluster of Porosity – Diaphragm to skin weld at 135 M (top) elevation close to D/E corner.

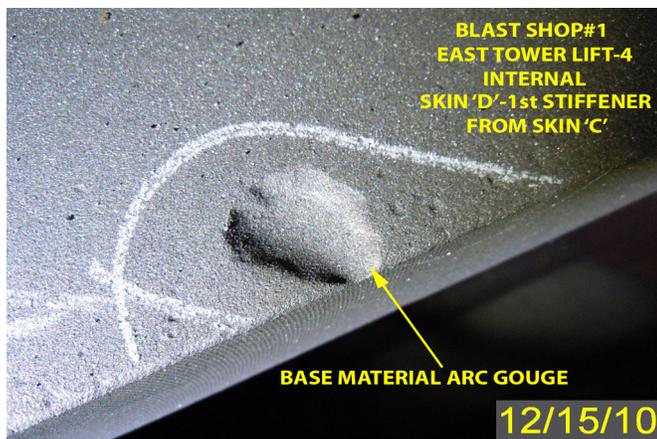
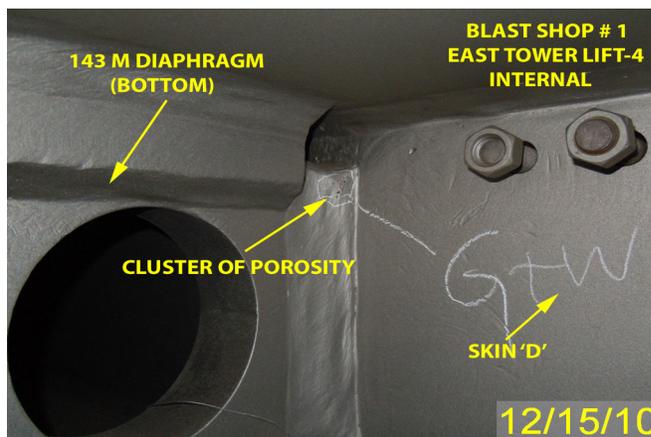
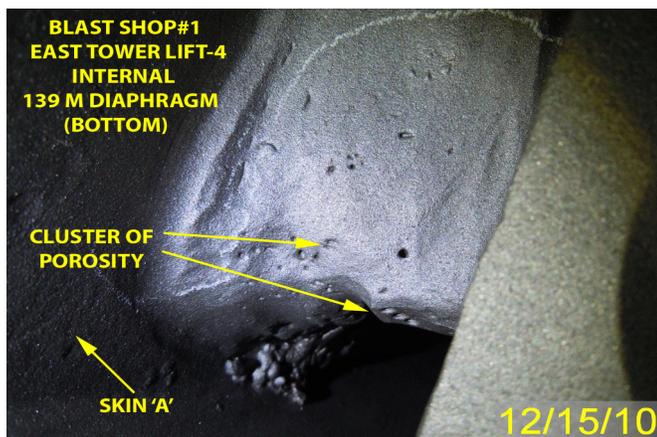
For further information, please see the attached pictures below.

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

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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