

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011712**Date Inspected:** 22-Jan-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:** Mr. Li Yang**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 (OBG)/Tower**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG TRIAL ASSEMBLY

This QA Inspector observed the following work in progress:

SEGMENT: 7AE-7BE

Flux Cored Arc Welding (FCAW) welding of weld joint SP337-001-037. Welder is identified as 019006. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2233-B-U2-F.

Flux Cored Arc Welding (FCAW) welding of weld joint SP610-001-037. Welder is identified as 068596. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2233-B-U2-F.

SEGMENT: 6BE-6CE

Shielded Metal Arc Welding (SMAW) Repair welding of weld joint OBE6A-001. Welder is identified as 048659. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-SMW-3G(3F)-FCM-Repair and Welding Repair Report

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(WRR)No:B-WR9900.

BAY-10 (TOWER)

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 005112

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The member is identified as Tower Component. The weld designations reviewed are as follows:

- 1.SSD1-SA208A/E-19,20.
- 2.SSD1-SA171A/D-44.

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted notification No: 005112.

Visual Inspection(VT)

This QA Inspector performed VT of the area previously Tested and accepted by ZPMC QC Personnel. The member is identified Tower Component. The identified component reviewed as follows:

- 1.ETM-1B/C-40-1,2.
- 2.SSD1-SA208A/E-19,20,26,27.
- 3.SSD1-SA171A/D-43,44,45,46.

BAY-11(TOWER)

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 005111

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The member is identified as Tower Component. The weld designations reviewed are as follows:

- 1.WSTL4-2 B/L-57A.
- 2.WSTL4-2 L/L-2A.

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted notification No: 005111.

Visual Inspection(VT)

This QA Inspector performed VT of the area previously Tested and accepted by ZPMC QC Personnel. The member is identified Exterior platform Component. The identified component reviewed as follows:

- 1.WSTL4-2 B/L-57A.
- 2.WSTL4-2 L/L-2A.

Green Tags

The following green tag issued for the Tower component after completing the NDT Requirement is:

- 1.EMT-1B/C-40-1,2 (Lift 2 south tower skin'D'Mechanical support.)Green tag #11595.

This QA Inspector observed the following work not in compliance:

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During the random 15% verification MT of Tower Lift 2 south tower skin"D"pad eye weld no:SSD1-SA208A/E-19,this QA Inspector discovered the following issue:

One(1)linear indication measuring approximately 12 mm in length.

The weld is fillet weld,joining south tower lift 2 skin"D"to pad eye.

The member is located in BAY-10

The indication area has not been tested by ZPMC QC MT Technician.

The notice of Witness Inspection Number (NWIT)is 005112.

Applicable reference:

AWS D1.5 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks”.

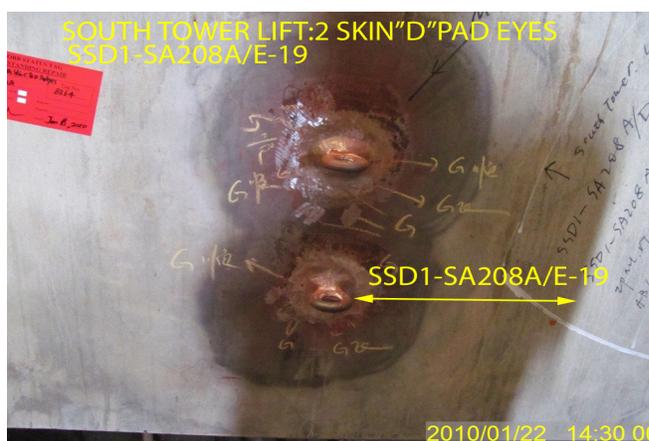
Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

AWS D1.5 (2002) Section 6.26.1.1 - “The weld shall have no cracks.”

This QA notified ZPMC QC identified as Merging Qin Jian and ABF inspector identified as Mr.Wuzhi Feng of the above issue and that an incident report will be generated.

See attached photos:

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



Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

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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 / Skyler Guest 15000422360, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer
