

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-018006**Date Inspected:** 26-Oct-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. Chen xi**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)**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:

BAY- 1

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07117.

Ultrasonic Testing (UT)

This QA performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated UT report for this date. The members are identified as OBG Steel barrier weld Components. Total number of welds UT Tested: 12 No's. The weld designations are review as follows:

1. E2-SB1D-001-050
2. E2-SB1-015-019
3. E2-SB1D-019-081
4. E2-SB7-002-019

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5. E2-SB7-002-050
6. E2-SB1C-003-050
7. E2-SB1D-020-019
8. E2-SB1D-017-019
9. E2-SB1-002-019
10. E2-SB1-005-050
11. E2-SB2-004-050
12. E2-SB5-009-081

During the QA Ultrasonic Testing (UT) review of weld located on the Steel Barrier (SB) rails, this QA Inspector observed One Class "A" rejectable indication measuring approximately 20 mm in length. The indication rating is +4dB. The depth of the indication was 9.5 mm. The weld joint is identified as E2-SB7-002-050. This weld is a Complete Joint Penetration (CJP) splice joint, joining SB Skin plate to the Diaphragm Flange plate. The thickness of the steel material is 12 mm. The "Y" location is approximately 30 mm from the nearest end of the weld. The indication is clearly marked on or near the weld.

This QA generated an incident report on this date for the above issue, for further information see the incident report and attached photos.

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint E2-SB1-019-126~131. Welder is identified as 203710. ZPMC Quality Control (QC) is identified as Mr. Ai wei. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint E2-SB5-017-019,050,081. Welder is identified as 216575. ZPMC Quality Control (QC) is identified as Mr. Ai wei. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2331-B-U2-F.

BAY- 2

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07104.

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 members are identified as OBG Steel barrier weld Components. Total number of welds MT Tested: 45 No's. The weld designations are review as follows:

1. E5-SB1-053-126~131,050,038,055
2. E5-SB1-038-126~131,081,070,086
3. E5-SB10-001-126~131,050,070,086
4. E5-SB1-044-126~131,050,070,086

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5. E5-SB1-020-126~131,081,070,086

Signed off the following green tag.

1. 15161

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

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:	Prabhu,Surendra	Quality Assurance Inspector
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Reviewed By:	Hall,Steven	QA Reviewer
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