

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014758**Date Inspected:** 09-Jun-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:** An Qing Xiang.**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**Summary of Items Observed:**

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

TOWER JETTY

This QA Inspector performed randomly Visual Inspection Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6027 (UT) report for this date. The member is identified as 65M Cross bracing gusset plate. The weld designations reviewed are as follows.

WD1-GUSA3-3-65M-S-3A/B, 4A/B,

WD1-GUSA3-3-65M-N-3A/B, 4A/B,

NDT Notification No-005929

BAY 10

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Manhole cover plate North tower lift 3. The weld designations reviewed are as follows.

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NSD1-FASA3-1C/E-17, 21
NDT Notification No-005935

This QA Inspector observed the following work in progress:

BAY 11: SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040610, 040724, Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-10-119M-2-29, 30, 53, 54, 17, 18, 45, 46, 15, 16, 27, 28 ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2112.

This QA Inspector observed ZPMC qualified welding personnel identified as 040611, 251194, Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-10-119M-2-55, 56, 15, 16, 17, 18, 29, 30, ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2112.

This QA Inspector observed ZPMC qualified welding personnel identified as 040656, Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-143M-1-81, 82, 71, 72, 45, 46, 53, 54, ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2112.

Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 044551, Perform Shielded Metal Arc Welding (SMAW) on Tower strut. Joint identified as ED1-STSA4-6-131M-1-10A/B. ZPMC QC Identified as Mao Bin Bin, with Temporary welding repair report WRR-T-WR3327. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-2G (2F) FCM-Repair-1. For more information see below attach photo number 1.

BAY 10: SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 050289, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as SSD1-SPSA5-16-2B. ZPMC QC Identified as Yu Zhi Lai, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 052930, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as SSD1-SPSA5-19-1A. ZPMC QC Identified as Yu Zhi Lai, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 053116, Perform Shielded Metal Arc Welding (SMAW) on Facade plate. Joint identified as SD1-SFSA4-10B/B-9, 10 and SD1-SFSA4-2B/B-1, 2. ZPMC QC Identified as Yu Zhi Lai, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

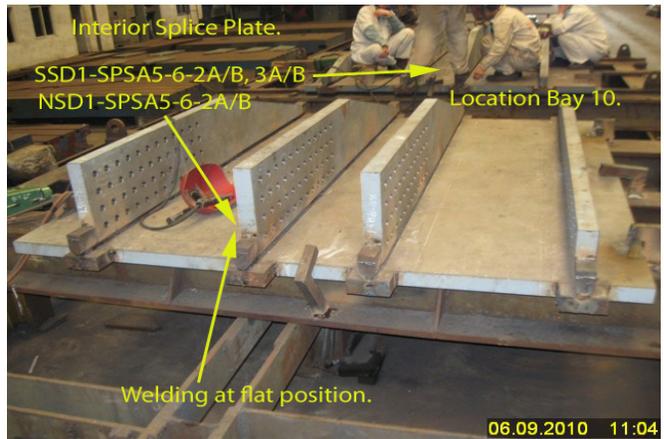
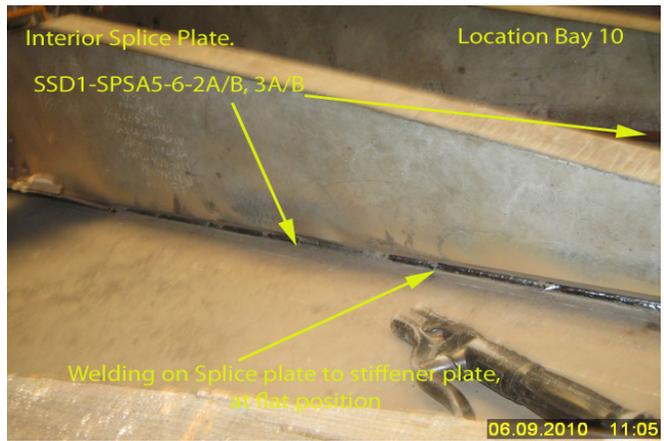
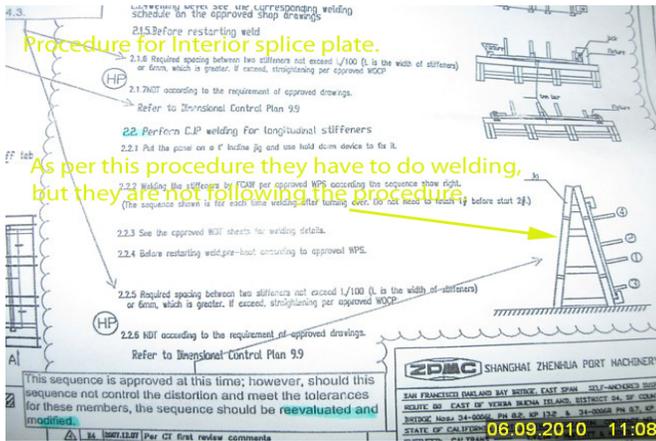
During random visual inspection in Bay 10, this Quality Assurance Inspector (QA) discovered the following issue:

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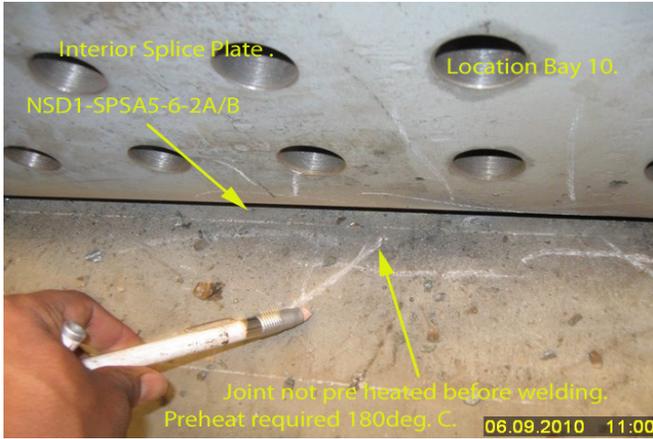
Qualified Welder spacing welding on Interior Splice Plate without following the procedure. The welds are identified as NSD1-SPSA5-6-2A/B, and SSD1-SPSA5-6-2A/B, 3A/B. Completed joint penetration. Interior Splice Plate identified for, North Tower lift 5 skin A, and South Tower lift 5 skin A. The member is located in Bay#10. This Interior splice plate was doing welding this QA Inspector observed that ZPMC QC is not following the procedure. The welding member shall be kept in vertical position on jack, for welding. But they are doing welding on flat position. This QA Inspector observed that joint was not pre heated before welding, incident report to be generated. For further information, please see the attached pictures:

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



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Summary of Conversations:

Only general conversation was held between QA and 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 Skyler Guest phone: 15000422360, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
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Reviewed By:	Clifford,William	QA Reviewer
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