

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-021070**Date Inspected:** 26-Feb-2011**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. Qiu wen**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:

OBG Assembly Bay- 14.

The following Non Destructive Testing (NDT) Inspection was carried out as per the ZPMC submitted Notification No.08396.

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 a UT report for this date. The members are identified as OBG weld Components. Total number of welds UT Tested: 6 No's. The weld designations inspected were as follows:

1. SEG3013B-243, 242, 241, 240, 239, 238

This QA Inspector randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint identified as SEG3020P-030. Welder is identified as

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067829. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-P-2114-FCM-1.

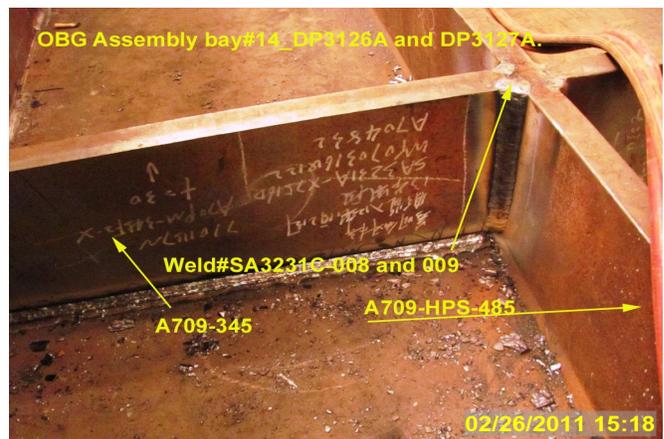
SMAW welding of weld joint identified as SEG3020P-029. Welder is identified as 069896. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-P-2114-FCM-1.

Flux Cored Arc Welding (FCAW) welding of weld joint identified as SEG3020P-044. Welder is identified as 066695. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-T-2133-ESAB.

During a random in process inspection of Orthotropic Box Girder (OBG) Deck Panel (DP) Sub assemblies DP3126A and DP3127A, this Caltrans Quality Assurance (QA) Inspector observed ZPMC welding personnel performed Flux Cored Arc Welding (FCAW) using a WPS that is not approved for the joint being welded. The welding was being performed to WPS-B-T-2133-ESAB which specifies A709-345 to A709-345 material using filler metal brand ESAB Dual Shield 70 Ultra Plus with classification E71T-1M/T-9M. The material being welded was A709-345 to A709-HPS-485. The welds are fillet weld T-joints, joining Seismic Performance Critical Material (SPCM) diaphragms identified as X4095B and X7516D to Rib Stiffeners identified as RS3387L, M and K. The weld joints are identified as SA3231C-008~013. The segment and Panel Point is 13 BW and PP120.5. The thickness of the material is 30 mm.

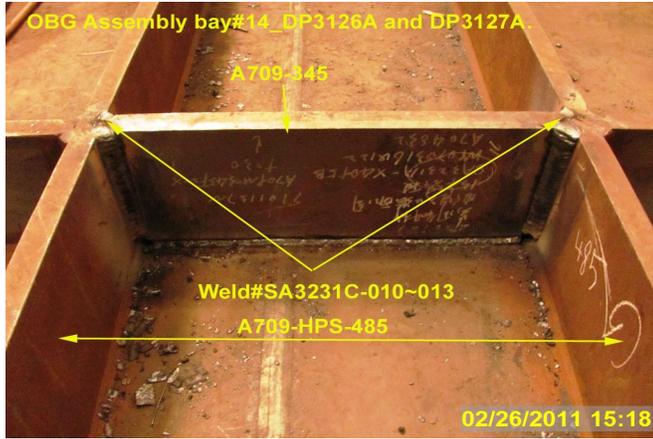
This QA Inspector generated an incident report on this date for the above issue, for further information see the incident report and attached photos.

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 significant conversations were reported on this date.

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

Reviewed By: Peterson,Art

QA Reviewer