

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002896**Date Inspected:** 13-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Lui Hua jie, 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:

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

New Tower Bay 1

The Caltrans QA Inspector randomly observed the machine Submerged Arc Welding (SAW) of fill passes on Weld No. SSD1-SA173G/K-42A, Skin Plate Face "E". The welding was performed in the flat groove (1G) welding position. The welding operator was Xu Yan (I. D. No. 052917). The Welding Procedure Specification (WPS) being used was WPS-B-T-2221-B-U3c-S. Certified Welding Inspector (CWI), Liu Hua jie (CWI No. 07120741), was present during the welding, as was ABF QA Inspector, Kong Yian hui. The QA Inspector verified the qualifications of the welding operator, and that the electrode/flux classification, diameter of electrode, amperage, voltage, travel speed, and preheat/interpass temperatures were within the specified ranges on the WPS.

The Caltrans QA Inspector also randomly observed the machine Submerged Arc Welding (SAW) of the root pass and fill passes on Weld Nos. SSD1-SA180B/E-21, 16A, 5, 15A, 19, 4A, 17, 24A, Skin Plate Face "D". The eight weld numbers are actually on one weld joint. The "A" welds are CJP and the remaining welds are PJP. They alternate CJP/PJP along the joint. The welding operator was Xu Xiu shui (I. D. No. 040489). Four Welding Procedure Specifications (WPS) were being used. WPS-B-T-2221-B-U3c-S-1 was used for the root pass on the CJP portion of the weld. WPS-B-T-2321-B-P3-S-1 was used for the root pass on the PJP portion of the weld. WPS-B-T-2221-B-U3c-S was used for fill passes on the CJP portion of the weld and WPS-B-T-2321-B-P3-S was

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used for the fill passes on the PJP portion of the weld. Certified Welding Inspector (CWI), Liu Hua jie (CWI No. 07120741), was present during the welding, as was ABF QA Inspector, Kong Yian hui. The QA Inspector verified the qualifications of the welding operator, and that the electrode/flux classification, diameter of electrode, amperage, voltage, travel speed, and preheat/interpass temperatures were within the specified ranges on the applicable WPS.

The Caltrans QA Inspector also randomly observed the milling of the weld bevels on miscellaneous tower parts.

New Tower Bay 2

The Caltrans QA Inspector randomly observed the machine Submerged Arc Welding (SAW) of the root pass on Weld Nos. ESD1-SA294G/H-58A, ESD1-SA294G/G-53, ESD1-SA294F/G-158A, and ESD1-SA294E/G-155, Skin Plate Face "C". The four weld numbers are actually on one weld joint. The "A" welds are CJP and the remaining welds are PJP. They alternate CJP/PJP along the joint. The welding operator was Yang Mei Zhen (I. D. No. 042195). Two Welding Procedure Specifications (WPS) were also being used. WPS-B-T-2221-B-U3c-S-1 was used for the CJP portion of the weld and WPS-B-T-2321-B-P3-S-1 was used for the PJP. Certified Welding Inspector (CWI), An Qing Xiang (CWI No. 07120651), was present during the welding, as was ABF QA Inspector, Wang Cheng jun. The QA Inspector verified the qualifications of the welding operator, and that the electrode/flux classification, diameter of electrode, amperage, voltage, travel speed, and preheat/interpass temperatures were within the specified ranges on the WPS.

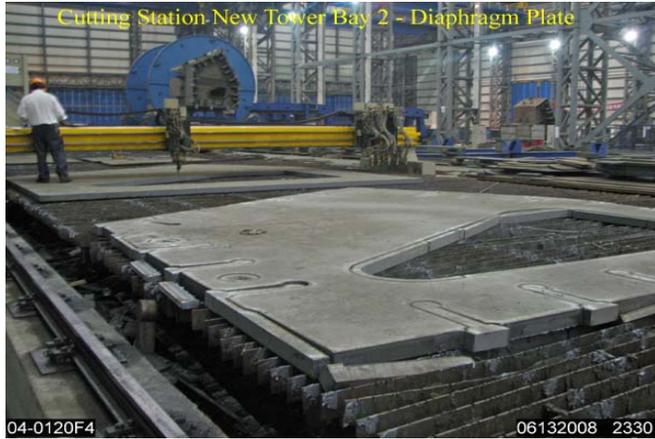
The Caltrans QA Inspector also randomly observed the machine Submerged Arc Welding (SAW) of the root pass on Weld Nos. ESD1-SA294F/G-159, 157A; and ESD1-SA294G/G-55, 57A, Skin Plate Face "C". The four weld numbers are actually on one weld joint. The "A" welds are CJP and the remaining welds are PJP. They alternate CJP/PJP along the joint. The welding operator was Xue Yian (I. D. No. 040634). Two Welding Procedure Specifications (WPS) were also being used. WPS-B-T-2221-B-U3c-S-1 was used for the CJP portion of the weld and WPS-B-T-2321-B-P3-S-1 was used for the PJP. Certified Welding Inspector (CWI), An Qing Xiang (CWI No. 07120651), was present during the welding, as was ABF QA Inspector, Wang Cheng jun. The QA Inspector verified the qualifications of the welding operator, and that the electrode/flux classification, diameter of electrode, amperage, voltage, travel speed, and preheat/interpass temperatures were within the specified ranges on the WPS. .

The Caltrans QA Inspector also randomly observed the milling of the weld bevels on miscellaneous tower parts and flame cutting at one work stations.

All above observations appeared to meet the requirements of the job specifications.

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Summary of Conversations:

As identified within the contents of this report.

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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Jobs, Kenneth

Quality Assurance Inspector

Reviewed By: Cochran, Jim

QA Reviewer