

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-007092**Date Inspected:** 18-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1845**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 645**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

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|------------------------------------|--------------------------------|----------------------------------|--------------------------|--------|
| CWI Name: | Li Peng Fei, Li Ming, Xiao Yun | 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 and OBG Components | |

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 5

This QA Inspector, George Goulet, proceeded to the Bay 5 in response to a ZPMC notification of witness inspection #3130 for MT inspection as follows:

This QA Inspector, George Goulet, performed random VT and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector, George Goulet, generated an MT report for this date. The member is identified as 20TR2-008. The weld designations reviewed are as follows: 009~018. Upon limited inspection, this QA Inspector, George Goulet, concurred with ZPMC QC Li Yang and ABF Representative Yu Kim on the issuance of a green tag and green tag #7196 was issued.

This QA Inspector, George Goulet, performed random VT and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector, George Goulet, generated an MT report for this date. The member is identified as 20TR2-007. The weld designations reviewed are as follows: 009~018. Upon limited inspection, this QA Inspector, George Goulet, concurred with ZPMC QC Li Yang and ABF Representative Yu Kim on the issuance of a green tag and green tag #7197 was issued.

This QA Inspector, George Goulet, performed random VT and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector, George Goulet,

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generated an MT report for this date. The member is identified as 20TR2-006. The weld designations reviewed are as follows: 009~018. Upon limited inspection, this QA Inspector, George Goulet, concurred with ZPMC QC Li Yang and ABF Representative Yu Kim on the issuance of a green tag and green tag #7198 was issued.

This QA Inspector, George Goulet, performed random VT and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector, George Goulet, generated an MT report for this date. The member is identified as 20TR2-005. The weld designations reviewed are as follows: 009~018. Upon limited inspection, this QA Inspector, George Goulet, concurred with ZPMC QC Li Yang and ABF Representative Yu Kim on the issuance of a green tag and green tag #7199 was issued.

Bay 10

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 10:

FCAW welding of weld joints NSD1-A166H/J-48, 167 located on PCMK north tower shaft interior, lift 1. Welder was identified at both welds as 053116. ZPMC QC was identified as CWI Wan Wen Zhong (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Li Peng Fei, who was not a CWI. The welding variables recorded by QC1 and his assistant appeared to comply with WPS-B-T-4333-Tc-P4-F. Also at this location and appearing to be monitoring the welding was ABF Representative Li Nan.

FCAW welding of weld joint NSD1-A166E/J-32B located on PCMK north tower shaft interior, lift 1, corners of skin B to skin C. Welders, both at this location, were identified as 053860, 053116. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Li Peng Fei, who was not a CWI. The welding variables recorded by QC1 and his assistant appeared to comply with WPS-B-T-2231-Tc-U4b-F. Also at this location and appearing to be monitoring the welding was ABF Representative Li Nan.

FCAW welding of weld joint NSD1-A112B/H-3A located on PCMK north tower shaft interior, lift 1, corners of skin B to skin C. Welder was identified as 052075. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Li Peng Fei, who was not a CWI. The welding variables recorded by QC1 and his assistant appeared to comply with WPS-B-T-2231-Tc-U4b-F. Also at this location and appearing to be monitoring the welding was ABF Representative Li Nan.

FCAW welding of a WRR, with no assigned number, of weld joint SSD1-FASA4-1A/E-5A located on PCMK south tower, lift 4, skin A. Welder was identified as 048376. ZPMC QC was identified as CWI Li Ming (QC2). The welding variables recorded by QC1 appeared to comply with WPS-345FCAW-1G(1F)-repair. Also at this location and appearing to be monitoring the welding was ABF Representative Jiang Zi Wen.

SMAW welding of weld joints SSD1-FCSA4-1A/C-64A, 59A located on PCMK south tower, lift 4, skin C. Welders were identified respectively as 040324, 205524. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Hao, who was not a CWI. The welding variables recorded by QC2 and his assistant appeared to comply with WPS-B-T-2211-B-U3b.

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FCAW welding of weld joints NSD1-FDSA3-1B/C-36,37 located on PCMK north tower, lift 3, skin D, using the southeast gantry. Welders were identified respectively as 040345, 048378. ZPMC QC was identified as CWI Li Ming (QC3). The welding variables recorded by QC3 appeared to comply with WPS-B-T-2332-Tc-P5-F. Also at this location and appearing to be monitoring the welding was ABF Representative Li Nan.

Bay 11

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 11:

FCAW welding of weld joint WSD1-FESA3-2B/D-29B located on PCMK west tower, lift 3, skin E which was mounted on an A-frame. Welder was identified as 058742. ZPMC QC was identified as CWI Xiao Yun (QC4). Assisting QC4 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Li Bin, who was not a CWI. The welding variables recorded by QC4 and his assistant appeared to comply with WPS-B-T-2331-Tc-U5-F.

SAW welding of weld joint WSD1-FCSA4-1A/C-8B located on PCMK west tower, lift 4, skin C. Welder was identified as 044550. ZPMC QC was identified as QC4. Assisting QC4 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Mao Bin Bin, who was not a CWI. The welding variables recorded by QC4 and his assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2.

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

Summary of Conversations:

As noted above, and this QA Inspector, George Goulet, asked each QC if all the welding variables observed by him appeared to comply with the appropriate WPS, including the preheat requirements according to thickness of the thickest member being welded. Each QC showed this QA Inspector, George Goulet, that he was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all he observed did appear to comply.

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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

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| Inspected By: | Goulet, George | Quality Assurance Inspector |
| Reviewed By: | Carreon, Albert | QA Reviewer |
