

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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013063**Date Inspected:** 19-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

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|------------------------------------|--|---------------------|---------------------------|----------------------------------|-----|----|-----|
| CWI Name: | Bnifacio Daquinag, Tony Sherwood, Bernard Docena | 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: | SAS OBG 2W/3W-D, 3W/4W-D, | | | | |

Summary of Items Observed:

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 2W/3W-D, 3W/4W-D, 2W/3W-A5 and the following observations were made:

2W/3W-D

Upon the arrival of the QA Inspector it was randomly observed the above identified weld joint was approximately 80% complete. The QA Inspector randomly observed the first 900mm of the weld segment D1 needed to be completed. The QA Inspector randomly observed the American bridge/Fluor (ABF) welder James Zhen performing flux cored arc welding (FCAW) fill passes in the 900mm described above. The QA Inspector randomly observed the Smith Emery (SE) Quality Control (QC) Inspector Bernard Docena was on site monitoring and recording the in process welding. The QA Inspector noted the 900mm being welded appeared to be approximately 40% completed upon the arrival of the QA Inspector. The QA Inspector noted the minimum required preheat of 150°F was being maintained during the production welding. The QA Inspector noted the FCAE parameters were 250 Amps, 23.5 Volts, it was noted the FCAW parameters appeared to be in general compliance with the ABF WPS identified as ABF-WPS-D1.5-3040A-1. The QA Inspector noted the ABF welder spent the remainder of the QA Inspectors shift performing the FCAW fill passes.

3W/4W-D

Upon the arrival of the QA Inspector it was randomly observed the ABF welding operators Jordan Hazelaar set up the submerged arc welding (SAW) machine in preparation of performing the SAW root pass. The QA Inspector noted the shielded metal arc welding (SMAW) full length tack weld was previously deposited on both sides of the

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weld joint against the bevel and the steel backing bar. The QA Inspector randomly observed the complete joint penetration groove weld was maintained above 150°F at the time of and during the production welding. The QA Inspector randomly observed the ABF welding operator Jordan Hazelaar begin welding the SAW root pass in approximately 500mm from the end of D1. The QA Inspector randomly observed the SAW parameters and they were 565 Amps, 32.5 Volts and a travel speed of 385mm/min. The QA Inspector noted the SAW parameters appeared to be in general compliance with ABF-WPS-D1.5-4042B-1. The QA Inspector noted only the SAW root pass was completed on the QA Inspectors shift.

2W/3W-A

The QA Inspector noted the SE QC Inspector performed MT of the above identified weld joint after the weld reinforcement had been ground flush. The QA Inspector performed MT verification of approximately 10% of the total weld length in weld segment A5. See TL-6020 for 4-19-10.

Summary of Conversations:

No pertinent conversation noted.

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 Mohammad Fatemi (916)-813-3677, who represents the Office of Structural Materials for your project.

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| Inspected By: | Bettencourt,Rick | Quality Assurance Inspector |
| Reviewed By: | Levell,Bill | QA Reviewer |
