

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-012861**Date Inspected:** 02-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: | Bernard Docena, Jesse Cayabayab | | | 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 1E/2E 2E/3E | | |

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 perform the administrative duties as well as randomly observed the in process welding and NDT of the Smith Emery (SE) Quality Control (QC) Inspectors. The following observations were made and described below.

1E/2E-D1/D2

The QA Inspector randomly observed the above identified weld had been previously completed and the weld reinforcement ground flush with the adjacent base material. The QA Inspector randomly observed the Smith Emery (S) Quality Control (QC) Inspectors Jim Cunningham and Jesus Cayabayab continued performing ultrasonic testing (UT) of the complete joint penetration (CJP) groove weld identified above. Upon the arrival of the QA Inspector, it was observed the SE QC Inspectors had located a total of 13 rejectable indications. The QA Inspector noted the rejectable indications were indicated with a distinguishing marking directly on the weld. The QA Inspector randomly observed and noted the UT was in progress for the remainder of the shift.

1E/2E-E1/E2

The QA Inspector randomly observed the American Bridge/Fluor (ABF) welders identified as Rory Hogan and Jeremy Doleman were mobilizing and setting up the flux cored arc welding equipment at the above identified location. The QA Inspector randomly observed the above identified weld joint had been back gouged and ground to shiny metal with a weldable profile. The QA Inspector noted the SE QC Inspectors had previously performed magnetic particle testing (MT) for informational purposes prior to backing welding. The QA Inspector randomly observed the induction heating blankets were set up and turn on, heating and marinating the minimum required

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

preheat of 150°F prior to performing the FCAW. The QA Inspector verified the minimum required preheat utilizing a 150°F temperature indicating marker. The QA Inspector randomly observed the ABF welder begin the FCAW back weld segment E2. The QA Inspector noted the ABF welders were utilizing a semi automated bug-o track system in the 4G position. The QA Inspector randomly observed the FCAW parameters appeared to be in general compliance with the contract requirements. The QA Inspector noted the above identified welders spent the remainder of the shift performing the FCAW fill passes.

2E/3E-D1/D2

Upon the arrival of the QA Inspector it was observed the above identified weld joint had been completed. The QA Inspector noted the cover pass had been ground flush with the adjacent base material. The QA Inspector randomly observed the QC Inspector Jim Cunningham performing magnetic particle testing (MT) of the completed cover pass. After the MT was completed the QA Inspector performed MT of approximately 10% of the total weld length. The QA Inspector noted no relevant indications were located at the time of the testing (see TL-6028 for additional information). No additional work was performed at the above identified weld on the QA Inspectors shift.

The QA Inspector spent the remainder of the shift completing the updating and the status of the current completed welding and non destructive testing of the transverse field splices. The Organization and updating of current charts and spreadsheets was related to field welding of 1E/2E-A, B, C, D, E, F, 2E/3E-A, B, C, D, E, F, 3E/4E-A, B, C, D, E, F and 1W/2W-A, B, C, D, E and F.

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 |
