

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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014072**Date Inspected:** 12-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1230**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1600**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Bonifacio Daquinag Jr.**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:** OBG Sections**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

- 1) At weld joint E4/E5 – A1 thru A5: ABF welding personnel Bryce Howell (#5591) and Jordan Hazelaar (#2135) were performing Submerged Arc Welding (SAW) with QC Inspectors Bonifacio Daquinag Jr. and Jim Cunningham present.
- 2) At weld joint E5/E6 – A1 thru A5: ABF welding personnel Rick Clayborn (#2773) was using the Shielded Metal Arc Welding (SMAW) process during the fit up of the weld joint with QC Inspector Jesus Cayabyab present.
- 3) Preparing to start repair welding at E3/E4-E1 and E2: ABF welding personnel Mitch Sittinger (#0315) was preparing an excavation in preparation to use the SMAW process on the outside of the weld joint with QC Inspector Tony Sherwood present.
- 4) General status bottom plate (D) welds on East OBG sections: see below for details.

At weld joint E4/E5 – A1 thru A5 this QA Inspector randomly observed ABF welding personnel Bryce Howell

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(#5591) using the SAW process. This QA Inspector randomly observed QC Inspector Bonifacio Daquinag Jr. monitoring the welding. This QA Inspector randomly observed QC Inspector Bonifacio Daquinag Jr. verify the preheat temperature was greater than 70° C prior to welding and the following welding parameters when welding started: 554 amperes and 32.6 volts with a travel speed of 371 mm per minute. This QA Inspector observed 1/8-inch diameter, ESAB Spool arc -81 was the electrode being used. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1. Welding was being performed from the center length of the weld progressing towards weld A-5.

At weld joint E4/E5 – A1 thru A5 this QA Inspector randomly observed ABF welding personnel Jordan Hazelaar (#2135) using the SAW process. This QA Inspector randomly observed QC Inspector Jim Cunningham monitoring the welding including the following welding parameters: 562 amperes and 32.5 volts with a travel speed of 388 mm per minute. This QA Inspector observed 1/8-inch diameter, ESAB Spool arc -81 was the electrode being used. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1. Welding was being performed from the center length of the weld progressing towards weld A-1.

At weld joint E5/E6 – A1 thru A5 this QA Inspector observed ABF welding personnel Rick Clayborn (#2773) using the SMAW process to fillet weld various fit up aids (dogs) to assist with the fit up and alignment of the weld joint. This QA Inspector observed QC Inspector Jesus Cayabyab and randomly observed him verify the following welding parameters: 142 amperes using a 3.2 mm diameter E7018 electrode. This QA Inspector observed a hand held torch was used to preheat the base material prior to welding. The welding observed appeared to comply with WPS- ABF-WPS-D15-F1200A.

At weld joint E3/E4-E1 and E2 this QA Inspector randomly observed ABF welding personnel Mitch Sittinger (#0315) start the excavation of defect ultrasonically rejected by QC personnel. QC Inspector Tony Sherwood was present and informed this QA Inspector this was the first of 13 defects for repair. The work observed by this QA Inspector appeared to comply with the contract requirements.

This QA Inspector performed a walk through on the East side of the OBG sections and observed the following status of welding in progress on the bottom or “D” plate welds: at E1/E2-D1 and D2 there is one outstanding repair which was confirmed by QC Inspector Steven McConnell, at E2/E3-D1 and D2 there are multiple outstanding repairs which was confirmed by QC Inspector Steven McConnell and at E3/E4-D1 and D2 it was observed the weld backing has not been removed as of this date.

Summary of Conversations:

As noted above.

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.

Inspected By: Hager,Craig

Quality Assurance Inspector

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Reviewed By: Levell,Bill

QA Reviewer