

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-016152**Date Inspected:** 09-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1100**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Jim Cunningham**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 Section**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 – E1 and E2, outside the OBG section: ABF welding personnel Jeremy Dolman (# 5042) and helper Paul Makris were performing Flux Cored Arc Welding (FCAW). QC Inspector Jim Cunningham was present.
- 2) At weld joint E4/E5 – E1 and E2, outside the OBG section: In the as welded condition, appears complete except for grinding and QC inspection.
- 3) At weld joint E5/E6 – C1 and C2, outside the OBG section: ABF personnel Bryce Howell and a helper had removed the backing strap, back gouged the weld and were in the process of grinding the back gouged weld.
- 4) At weld joint W4/W5-D1 and D2, outside the OBG section: The weld has been backgouged and Magnetic Particle Testing (MT) has been performed by QC. Several areas were observed to be marked for additional grinding.
- 5) At weld joint W4/W5-D1 and D2, outside the OBG section: ABF personnel were in the process of removing

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fitting aids and temporary welds.

At weld joint E4/E5 – E1 and E2, outside the OBG section this QA Inspector observed ABF welding personnel Jeremy Dolman (# 5042) and helper Paul Makris using the FCAW process for production welding. Prior to the start of production welding this QA Inspector observed QC Inspector Jim Cunningham verify the base metal was at a temperature greater than the minimum preheat and the following welding parameters: 242 amperes and 24.7 volts. This QA Inspector observed QC Inspector Jim Cunningham verify a travel speed of 192 mm per minute on the first production weld pass of the shift. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-3040A-4. Later in the shift this QA Inspector verified the temperature of the base metal was greater than the minimum preheat specified on the WPS.

At weld joint E4/E5 – E1 and E2, outside the OBG section this QA Inspector observed the welding appeared to have been completed, but was still in the as welded condition. As of this shift this QA Inspector did not observe ABF personnel performing any further work in the area.

At weld joint E5/E6 – C1 and C2, outside the OBG section this QA Inspector observed ABF personnel Bryce Howell and a helper had removed the backing strap, back gouged the weld and were in the process of grinding the back gouged weld.

At weld joint W4/W5-D1 and D2, outside the OBG section this QA Inspector observed the weld has been backgouged and it appears that QC has performed the MT inspection. This QA Inspector observed several areas marked for additional grinding. This QA Inspector performed a visual verification and observed the marked areas appeared to be linear indications from welding slag and/or areas that had not been cleaned from back gouging.

At weld joint W4/W5-D1 and D2, outside the OBG section this QA Inspector observed an ABF worker in the process of removing fitting aids and temporary welds using a large grinder.

In general the work observed appeared to comply with the contract requirements.

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
Reviewed By:	Levell,Bill	QA Reviewer
