

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 #: 82.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016773**Date Inspected:** 02-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1330**Contractor:** Westmont Industries**Location:** Santa Fe Springs, CA.**CWI Name:** R. Rodriguez, R. Dominguez**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:** Travelers**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding of the Travelers. The QA Inspector arrived on site to randomly observe the WMI Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

Traveler E2/E3-EB

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Juan Mora, (WID # 3121), performing tack welding activities, for the fabrication of the E2/E3-EB Travelers. The QA Inspector observed Mr. Mora utilizing the Flux Core Arc Welding (FCAW) process and that Mr. Mora was currently qualified to perform the FCAW tacking. The QA Inspector observed that Mr. Mora was utilizing a Miller brand machine and wire feeder, to perform the welding and that Ultracore 71A85 (.045") diameter wire was being utilized.

The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the welding activities and Mr. Dominguez explained that an approved Welding Procedure Specification (WPS) was being utilized to perform the tack welding.

The QA Inspector observed that the tack welding was being performed on the Rectangular and Square Tube Steel, which was previously cut to length and that Mr. Mora was utilizing a fabrication Jig. The QA Inspector observed that the fabrication Jig, consisted of a flat steel fabrication table, which had small pieces of steel angle tack welded to the table. Mr. Mora explained that the pattern and position of the tack welded angle allows the cut pieces of

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tube steel to be placed flat on the table and aligned to create a tight fabrication fit up of the weld joints. Mr. Mora further explained that this fabrication jig will be utilized for all of the assemblies which are identically detailed, per the approved shop drawings.

The QA Inspector observed that once the the tack welding was complete that Mr. Mora then placed the assemblies on the Bay 4 shop floor. These assemblies included A216, A217 and A223.

On this date, the QA Inspector was informed by WMI Shop Superintendent, George Grayum that plate material is currently being cut, for the E2/E3-EB Traveler. Mr. Grayum informed the QA Inspector that the Bay # 4 flame cutting table is being utilized for the cutting operations.

The QA Inspector observed WMI production personnel Mr. Jerry Smith, utilizing the flame cutting table, to cut plate material. Mr. Smith explained that he was currently cutting material, to be utilized for the fabrication of the E2/E3-EB Traveler. The QA Inspector observed that the cutting operations were being performed, utilizing two oxygen acetylene cutting torches and that the plate material was stationary on the cutting table. The QA Inspector observed that the two torches were mobile and cutting specific dimensional shapes in the material, which Mr. Smith had previously programmed into the computer software. Mr. Smith explained that the material piece marks being currently cut were identified as Gusset Plates "53", per the approved shop Drawing Bill of Material list, (Drawing # WMI-SAS-260) and that a total of two each of these plates will be cut. Mr. Smith then explained that once the cutting operations on these two plates are complete, that the piece marks identified as Gusset Plates "50", (Drawing # WMI-SAS-260), will then be cut and identified on the pieces.

The QA Inspector observed that the plate material had been previously inspected with the MTR's provided and the QA Inspector had previously written "OK to Cut" on the material.

Trolley Test Stand

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Daniel Grayum, (WID # 3048), performing welding activities, for the fabrication of the Trolley Test Rack. The QA Inspector observed Mr. Grayum utilizing the Flux Core Arc Welding (FCAW) process and that Mr. Grayum was currently qualified to perform the FCAW process. The QA Inspector observed that Mr. Grayum was utilizing a Miller brand machine and wire feeder, to perform the welding and that Ultracore 71A85 (.045") diameter wire was being utilized.

The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the welding activities and Mr. Dominguez explained that an approved Welding Procedure Specification (WPS) was being utilized to perform the tack welding.

The QA Inspector observed that the tack welding was being performed on the Gusset plates and Beams, for the fabrication of the the Rail Support Beam Assembly 3-A5 (Reference Drawing # TTC-5).

The QA Inspector observed that the FCAW, appeared to be in compliance with the applicable WPS's and contract requirements.

See attached pictures below.

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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 Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Vance, Sean	Quality Assurance Inspector
Reviewed By:	Edmondson, Fred	QA Reviewer
