

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-017605**Date Inspected:** 20-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**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:

Trolley Test Stand

On this date, the QA Inspector observed WMI production welder, Mr. Juan Jimenez (WID # 3059), continuing to perform fitting and Gas Metal Arc Welding (GMAW) activities for the assembly identified as Rail Y Assembly 2-A4, web to flange. The QA Inspector observed Mr. Jimenez performing the GMAW in the Horizontal (2F) position on the previously fit Web to Top Flange plate material and the fit up T-joint appeared to be designated as an 8 mm fillet weld. The QA Inspector observed that the GMAW continued throughout the shift.

SAS-EB Traveler**Fixed Stairs Section**

On this date, the QA Inspector observed Westmont Industries (WMI), production personnel Mr. Raymundo Anaya (WID # 3196), Mr. Cesar Canales and Mr. Jose Rodriguez (WID # 3031), continuing to perform fitting and Flux Core Arc Welding (FCAW) activities for the fabrication of the Fixed Stairs Section Assembly. The QA Inspector observed that the activities were being performed on the previously placed and fit Frame Assemblies, identified as A237, B237, A218, A219 and A223. The QA Inspector observed Mr. Anaya and Canales occasionally reference the shop drawings and then fit and tack weld various pieces of previously cut material, including Tube Steel (TS) and connector plates. The QA Inspector observed that Mr. Anaya and Rodriguez were performing the FCAW in

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various positions throughout the shift.

See attached picture below.

Frame Assemblies

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Eutimo Lopez (WID # 3035), continuing to perform Flux Core Arc Welding (FCAW) activities for the SAS-EB Traveler frames. The QA Inspector observed Mr. Lopez performing the FCAW on previously fit and tack welded Tube Steel (TS) and plate material, for the Frame Assembly identified as B240, per the shop drawings. The QA Inspector observed Mr. Lopez perform the FCAW in various positions and observed that Mr. Lopez was performing the FCAW, fillet and flare groove welds, plate to TS material throughout the shift.

On this date, the QA Inspector observed WMI production personnel Mr. Jerry Smith, continuing to utilize the flame cutting table, to cut plate material. The QA Inspector then spoke with Mr. Smith and he explained that the material currently being cut, will be utilized for the fabrication of the SAS-EB Traveler Frame Assemblies. 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. 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.

On this date, the QA Inspector observed Westmont Industries (WMI) production personnel Mr. Tim Hartnett, continuing to cut material which will be utilized, for the Traveler Frame Assemblies. The QA Inspector observed that Mr. Hartnett was continuing to utilize a Marvel® 15 A series horizontal band saw, to perform the cutting operations and observed that the material being cut, is identified as rectangular and square Tube Steel (TS). The QA Inspector spoke with Mr. Hartnett and he explained that WMI shop supervisor, Mr. George Grayum, had provided a list of TS material, with specific dimensions, per the shop drawing bill of materials. Mr. Harnett further explained that he was cutting the material to these specific lengths and marking the material with a white paint stick marker, to identify the individual cut pieces of material. After the material was cut and marked, the QA Inspector observed Mr. Hartnett utilize the overhead bay crane, chain and hook to lift and place the material into neatly stacked piles, nearby the cutting area. The QA Inspector noted that the Mill Test Reports (MTR's) had been previously provided and the QA Inspector had previously written "OK to Cut" on the material.

E2/E3-EB Traveler

The QA Inspector observed WMI production personnel, Mr. Ruiz Villasenor, continuing to utilize the Pearson shear to cut plate material. The QA Inspector then spoke with Mr. Villasenor and he explained that .375" (10 mm) material was currently being cut, to be utilized for the fabrication of the E2/E3-EB Traveler. Mr. Villasenor then explained that he had previously and is currently, reviewing the shop drawings, to generate a list of .375" (10 mm) thick plate material, per the Bill of Material list, to be cut from each identical piece of plate material, of the identical thickness. Mr. Villasenor had previously explained that this method is more efficient than having to remove each sheet of plate material and cut, with varying degrees of thicknesses. Mr. Villasenor explained that each sheet of plate material is placed in the shear for cutting, utilizing the overhead shop bay crane. The QA Inspector observed that the above mentioned plate material had been previously inspected and the MTR's had been previously provided and the QA Inspector had previously written "OK to Cut", on the plate material.

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The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and tacking activities and QC Inspector Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. The QA Inspector randomly observed that the applicable WPS's and copies of the shop drawings, were located near each work station, where the above mentioned FCAW and fitting activities were being performed. The QA Inspector randomly verified that the consumable material, utilized during the welding was in compliance to the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. The QA Inspector randomly observed QC Inspector Dominguez verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.



Summary of Conversations:

On this date, the QA Inspector spoke with WMI Director of Quality Assurance, Mr. Curtis Bell, regarding the status of submittal for the Alternate UT Procedure, for the testing of the CJP splices on the 5 mm thick Tube Steel (TS) material. Mr. Bell explained that he had just received notification this morning, from ABF QCM Jim Bowers, that WMI needs to submit this UT procedure, for Caltrans review and approval. Mr. Bell then explained that this action will be taken either on this date, or by the following date, 10/21/01, in the am. The QA Inspector reminded Mr. Bell that the previous UT inspection which had been performed by SE QC Ruben Dominguez on the 5 mm material, had been performed per a bootleg copy of the procedure.

The QA Inspector then questioned Mr. Bell on the status of the Heat Straightening Procedure submittal, which WMI will possibly utilize to heat straighten excessive distortion of material, caused by welding of the material. Mr. Bell explained that he was not sure of the status and then asked the QA Inspector if this was a procedure which WMI had written. The QA Inspector explained to Mr. Bell that WMI QCM Rick Rodriguez had been in process of creating a procedure for this, per AWS D1.1 2002. Mr. Bell then explained that he will check with Mr. Rodriguez on the submittal status. Later, the QA Inspector was informed by Mr. Rodriguez that the Heat Straightening Procedure had been previously submitted to ABF Jim Bowers, via hard copies, dated 10/12/10.

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.

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