

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-017019**Date Inspected:** 17-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:

Trolley Test Stand

The QA Inspector observed Smith Emery QC Inspector Ruben Dominguez performing Ultrasonic Testing (UT), on piece marks designated as Rail Y Web Splices, per the shop drawings, WMI-TTC-4. The QA Inspector observed that the weld joints numbers were designated as WS1 and WS2. The QA Inspector observed that the GMAW had been completed on the previous day and the welds were currently at ambient temperature. The QA Inspector observed that per the shop drawings, these weld joints were designated as Complete Joint Penetration, 45 degree double bevel preparation.

The QA Inspector observed QC Inspector Dominguez initially perform a Lamination scan, utilizing a 0 degree transducer (straight beam) on the completed weld joints, to verify that laminar reflectors were not present in the weld joint testing area. After observing QC Inspector Dominguez performing the Lamination scan, Mr. Dominguez explained that no rejectable indications were found and the inspection was being performed in accordance to approved procedure SE-UT-CT-D1.1-104 Rev. # 2. The QA Inspector then observed Mr. Dominguez utilizing a 70 degree lucite wedge, attached to a 2.25 MHz transducer, to perform Shear Wave testing, on the above mentioned weld joints. The QA Inspector observed Mr. Dominguez utilizing a Krautkramer USN 52L testing instrument and during the testing, the scanning pattern appeared to be in compliance with AWS Fig. 6. 24. After testing was complete, Mr. Dominguez explained that no rejectable indications were found and an

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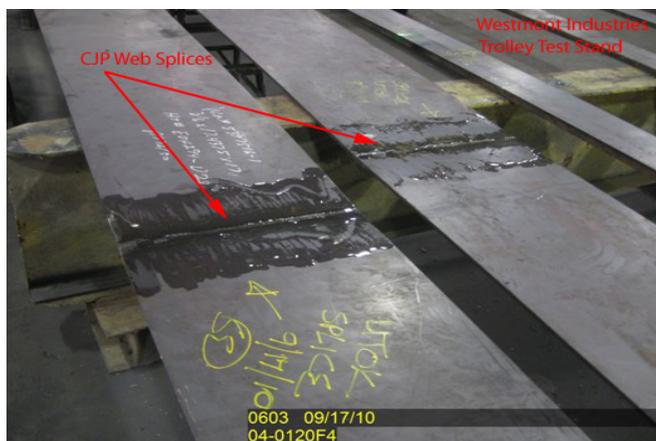
applicable Ultrasonic Testing report will be completed, for the inspection.

See attached picture below.

The QA Inspector later observed that Smith Emery QC Inspector Ruben Dominguez was in-process of performing Magnetic Particle Testing (MT) on the previously excavated weld repairs. The QA Inspector observed that the MT was being performed on the Complete Joint Penetration (CJP) welds for the Rail X and Rail Y flanges for the Trolley Testing Rack, designated as Weld Joint identification TS1, TS2, TS3, BS1 and BS2. Mr. Dominguez explained that the testing was being performed in accordance to approved MT Procedure SE-MT-CT.D1.1-105, Rev. # 1. During the testing, the QA Inspector observed that rejectable indications were found and Mr. Dominguez would then mark the areas for additional grinding and WMI production welder Jose Rodriguez would then perform additional grinding, utilizing a mechanical grinder with an attached 4" wheel. Mr. Dominguez explained that the indications appeared to be small clusters of slag inclusions. Once the grinding was complete, the QA Inspector observed that VT/ MT was being performed by Mr. Dominguez to insure removal of the rejectable indications. Mr. Dominguez later explained that the additional grinding did remove the indications and the VT/ MT of the excavations was acceptable. Mr. Dominguez explained that welding activities on the repairs will possibly commence, later in the shift. The QA Inspector observed that the above mentioned testing appeared to be in compliance with the contract requirements.

Traveler Test Rack

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Alberto Cortes (WID # 3141) performing Flux Core Arc Welding (FCAW) tacking and grinding activities for the Traveler Test Rack. The QA Inspector observed that Mr. Cortes was utilizing a Miller brand machine and wire feeder, to perform the FCAW tacking and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal. The QA Inspector observed that the FCAW Tacking and grinding activities were being performed on the support columns, for the Traveler Test Rack. The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned tacking activities and Mr. Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. The QA Inspector observed that Mr. Cortes had copies of the approved WPS's nearby the work station, at the time of performing the tacking activities and the activities appeared to be in compliance with the contract requirements.



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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
