

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-017018**Date Inspected:** 16-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 X and Y flanges, per the shop drawings, WMI-TTC-3 and TTC-4.

The QA Inspector observed that the GMAW had been previously completed and the welds had cooled to 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. During the shear wave scan testing, the QA Inspector observed QC Inspector Dominguez marking up areas on the weld joints which appeared to be rejectable indications.

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After testing was complete, Mr. Dominguez explained that areas in each of the weld joints had rejectable indications, which he had marked on the weld joint area, utilizing a yellow paint stick marker. QC Inspector Dominguez explained that he will generate an Ultrasonic Testing Report, to document the testing results. QC Inspector Dominguez did not know at this time, when WMI production personnel will commence with the excavations and weld repairs on these particular joints.

The QA Inspector observed that the above mentioned testing, appeared to be in compliance with the contract requirements.

See attached pictures below.

Traveler E2/E3-EB

The QA Inspector observed Westmont Industries (WMI), production welder Daniel Grayum (WID # 3049) and Larry Swanson (WID # 3058) fitting TS material for the Traveler Frame assemblies.

On this date, the QA Inspector observed that no welding activities were performed on the project.



Summary of Conversations:

On this date, the QA Inspector was informed by Westmont Industries (WMI) Quality Control Representative Curt Bell, that WMI would like to utilize Mr. Raymundo Anaya, to perform Certified Welding Inspector (CWI) activities, for the Travelers.

Mr. Bell explained that “Raymundo is a new employee for Westmont-He has 30 + years experience as a welder and is a CWI”. Mr. Bell further explained that WMI would like to use him as a fitter, welder and utilize him as a CWI on the project. Mr. Bell explained that Mr. Anaya would not be inspecting his own welds.

The QA Inspector had previously observed that Mr. Anaya had performed fitting activities only, on the Traveler frames, for the project.

Mr. Bell then explained that he had reviewed section AWS CQ1:2007 11.4 under conflict of interest, and found nothing that would preclude WMI from using him in this capacity.

Mr. Bell then asked the QA Inspector if there was a requirement from Caltrans that would preclude this.

The QA Inspector then informed SMR Kittric Guest that WMI would like to submit Mr. Anaya to perform CWI activities on the project and explained to Mr. Guest the details of the above mentioned conversation. Mr. Guest explained that he will check on this and notify the QA Inspector. After approximately 30 minutes, Mr. Guest informed the QA Inspector that the Caltrans Special Provisions does not allow this as explained below:

A. The work is welded in conformance with AWS D1.5 or AWS D1.1 as applicable to the work being performed

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and is performed at a permanent fabrication or manufacturing facility which is certified under the AISC Quality Certification Program, Category Cbr, Major Steel Bridge. Additionally, work performed under AWS D1.5 shall have Fracture Critical endorsement F.

B. The welding is performed on pipe pile material at a permanent pipe manufacturing facility where an automatic welding process or seamless pipe operation is used in conformance with the requirements in the applicable welding code as specified elsewhere in these special provisions.

For welding performed at such facilities, the inspection personnel or NDT firms may be employed or compensated by the facility performing the welding provided that there is a complete separation between the QC and production departments. A complete separation shall mean that all inspections and tests listed in section 6 of AWS D1.5, and all QC inspections listed in the special provisions shall be performed by personnel that are employed by the QC Department, and are not employed in any production capacity.

The QA Inspector then notified Mr. Bell of the requirements of the Caltrans Special Provisions and explained that due to the fact that WMI is not an AISC certified facility, that QC Inspection will continue to be performed by a 3rd party inspector.

Mr. Bell then asked the QA Inspector if there were duties which Mr. Anaya can perform to utilize his CWI certification. The QA Inspector explained that Mr. Anaya could assist QCM Rick Rodriguez for the development of weld maps and numbers, related to the Traveler assemblies. The QA Inspector explained that this should help WMI stay current with these activities.

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
