

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-022177**Date Inspected:** 12-Mar-2011**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:** Ruben 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:**

This Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding, QC inspection and non-destructive testing of the Travelers. Upon the arrival of the QA Inspector, the following observations were made:

E2/E3-EB Traveler

This QA Inspector performed approximately 10% or greater random Ultrasonic Testing (UT) on the Complete Joint Penetration (CJP) Tube Steel Frame Assembly butt weld splices, for the frame assemblies identified as 7-A327, 8-B327, 9-A332 & 10-B332. Prior to performing the testing, this QA Inspector had been previously informed by Smith Emery (SE) QC Inspector Mr. Ruben Dominguez that he had performed Ultrasonic Testing (UT) on the above mentioned weld joints and no rejectable indications were found, at the time of testing. Prior to performing the testing, this QA Inspector had performed an instrument calibration check utilizing an AWS IIW block and a previously machined block, which appeared to have 3 side drilled 1.5 mm holes located at depths of 3mm, 6mm and 8mm. During calibration, this QA Inspector verified transducer angle, exit point utilizing the IIW block and this QA Inspector established a four point Distance Amplitude Correction (DAC) curve utilizing the machined block. This QA Inspector then added 6 Db over calibrated reference level, for scanning purposes. During calibration, this QA Inspector utilized a previously fabricated mock up, which appeared to have a 1.5mm drilled hole in the radius corner of the mock up. This QA Inspector noted that per SE bootleg procedure SE-UT CT-D1.1-104 Rev. 6, that when conducting examination of the radius corners of tube steel products a contact correction must be established by bringing the root side drilled hole indication from the mock up to an equivalent of the 8mm deep side drilled hole in the DAC calibration block as reference for this area, then add 6 Db for scanning purposes. This QA Inspector then added 20Db over calibrated reference level, for scanning purposes.

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Initially, this QA Inspector performed a straight beam scan on the base metal areas, to verify that laminar defects were not present in the base metal area, through which subsequent angle beam inspection will be performed. After performing the straight beam scan, this QA Inspector noted that no laminar defects were present in the base metal. This QA Inspector utilized a GE USN 60 testing instrument and a 25 mm diameter, 2.25 MHz frequency transducer to perform the longitudinal beam scan. This QA Inspector then proceeded to perform the shear wave inspection, utilizing the above mentioned testing instrument and a 6 mm diameter transducer coupled to a 70 degree angle, short index point, Lucite wedge. During testing, this QA Inspector randomly tested 1 each of the four sides of the above mentioned weld joints and 2 each of the radius corners on the above mentioned weld joints. During testing, this QA Inspector utilized the applicable scanning patterns which were in compliance to AWS D1. 1 2002, Fig. 6.24. Upon completion of the testing, this QA Inspector found no rejectable indications per AWS D1. 1 2002 Class R Acceptance/Rejection Criteria and the Smith Emery procedure, SE-UT-CT-D1.1-104, Rev. 6. See completed TL-6027, for additional details.

This QA Inspector observed WMI production personnel Mr. Raymundo Anaya, Mr. Cesar Canales and Mr. Jesus Rayas performing fitting activities on the E2/E3-EB Traveler. This QA Inspector observed the above mentioned personnel performing the activities on the previously completed elevating platforms. During observation, this QA Inspector observed that the above mentioned personnel appeared to be utilizing the overhead shop bay crane and chains to lift the elevating platforms and place at the applicable hinge points on the fixed stairs section of the Traveler. During observation, Mr. Anaya explained to this QA Inspector that these activities being performed, were a trial fit of the Elevating Platforms. Later, Mr. Anaya explained that one of the elevating platforms appeared to fit, raise and lower without any interference or binding but the other needed minor grinding, to achieve the desired fit results.

This QA Inspector observed that the activities mentioned above, appeared to be in compliance with the contract requirements and this QA Inspector observed no non-conforming issues, on this date.

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
