

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012274**Date Inspected:** 26-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR**CWI Name:** M. Gregson, J. Salazar**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:** Hinge K Pipe Beams**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

OIW Fabrication Shop-Bay 3

Hinge-K Pipe Beam Assembly 102A-2:

The QA Inspector witnessed WID #06 (Tim O'Brian), performing pre-heating, in preparation for the Flux Core Arc welding (FCAW), on the Critical Weld Repair #2244-023. The QA Inspector noted that OIW had previously received State verbal approval to proceed with the CWR's #2244-022 and #2244-023. The QA Inspector noted that this CWR #023 was previously submitted for linear indications discovered during Magnetic Particle Testing (MT) and that OIW had previously completed the excavation. The QA Inspector noted that this weld joint was designated as #145, piece mark a108 to a111. The QA Inspector noted that the pre-heat was being applied utilizing a stationary propane torch, or Rosebud. The QA Inspector noted that localized pre-heat was also being applied by WID #06, utilizing a hand held oxygen-acetylene torch. The QA Inspector noted that OIW QC Inspector Jose Salazar was present and QC Inspector Salazar explained that the CWR was being performed, per OIW Welding Procedure Specification (WPS) 3051 and the CWR Specific Instructions. The QA Inspector noted that the pre-heat required, prior to performing the Flux Core Arc Welding (FCAW) was 550 degrees Fahrenheit (288 C), per the CWR Specific Instructions. The QA Inspector later spoke with QC Inspector Salazar and he explained that WID #06 had started the FCAW on the repair and he was notified prior to welding. QC Inspector Salazar explained that the pre-heat temperature was verified at the minimum 550 degrees Fahrenheit and the average, in-process welding

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

parameters were 265 amps and 26.5 volts. QC Inspector explained that the CWR should be complete at the end of shift and Swing Shift will start the post heat on the repair. Lead QC Inspector Mike Gregson explained that QC Inspector Gary Mundt will be present to monitor the welding activities. See attached pictures below.

Material, Equipment, and Labor Tracking (MELT)

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project. The QA Inspector observed at Oregon Iron Works: 2 OIW production personnel and 2 QC Inspectors.



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 Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By: Vance, Sean

Quality Assurance Inspector

Reviewed By: Adame, Joe

QA Reviewer