

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 #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014703**Date Inspected:** 09-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR

CWI Name:	M. Gregson, J. Salazar, G. Mundt	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:

Hinge-K Pipe Beam Assembly 101A-3:

The QA Inspector observed that WID #S53 (Jerry Shepherd) was currently in process of performing the submerged Arc Welding (SAW), on the Weld Joint #W4-01. The QA Inspector noted that this Complete Joint Penetration (AWS D1.5 B-U7-S), was the Fuse 120A-3 to Forging 102A-3 and that the SAW was being performed from the exterior of the weld joint in the flat position. The QA Inspector observed that continuous pre-heat was being applied utilizing 2 previously set up stationary rosebud torches, on the outside of the weld joint.

The QA Inspector verified that WID #S53 was currently qualified for this and randomly observed that WID #S53 had the applicable Welding Procedure Specification 4016, nearby the work area.

The QA Inspector observed that OIW QC Inspector Jose' Salazar was present, during this shift to monitor the welding activities being performed on the project. The QA Inspector spoke with QC Inspector Jose' Salazar and QC Inspector Salazar explained that he had previously recorded in process SAW parameters of 450 amps and 32 volts, during the SAW root passes. QC Inspector Salazar explained that he had previously recorded a travel speed of 16.5 inches per minute. The QA Inspector noted that these welding parameters appeared to in compliance with the applicable WPS.

QC Inspector Salazar explained that the Visual and Magnetic Particle testing (VT/MT) on the backgouge had been performed by OIW QC Inspector Jon Nickolich and was acceptable. QC Inspector Salazar explained that he

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wasn't sure if QC Inspector Nicholich had measured the depth of the backgouge, during the VT performed. QC Inspector Salazar explained that he had measured the depth and recorded 57 mm-62 mm, prior to the SAW being started.

The QA Inspector later observed that WID # S53 had continued the SAW on the weld joint throughout the shift, completed the root passes and had started the fill passes.

The QA Inspector was present on this swing shift and observed WID #V7 (Vincent Vue) performing Flux Core Arc welding (FCAW) on the above mentioned weld joint. The QA Inspector observed that OIW QC Inspector Gary Mundt was present and QC Inspector Mundt explained that WID # V7 was performing a in-process repair. QC Inspector Mundt explained that a lack of fusion area was previously ground out on day shift and the repair is required prior to continuing the SAW. The QA Inspector observed QC Inspector Mundt checking welding parameters during the in-process FCAW and recorded as follows: 220 amps, 24 volts, travel speed of 9 inches per minute and consistent pre-heat maintained at approximately 350 degrees Fahrenheit. The QA Inspector observed that the FCAW was being performed in the vertical position and the applicable Welding Procedure Specification (WPS) 3048 was being utilized for the repair.

The QA Inspector later observed that the FCAW was complete and the joint was pre-heating, in preparation for the SAW. The QA Inspector observed that the above mentioned SAW and FCAW appeared t be in compliance with the applicable WPS 4016 and WPS 3048.

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 Clackamas: 4 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
