

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-013402**Date Inspected:** 21-Apr-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-2:

The QA Inspector witnessed OIW QC Inspector Rob Walters performing Ultrasonic Testing (UT) on the previously completed submerged arc welding (SAW) joint, # WM4-1. The QA Inspector noted that this was a Complete Joint Penetration (CJP), AWS D1.5 B-U7-S, piece mark Fuse 120A-5 to Forging 102A-2 and that the minimum 72 hr. cooling time, prior to the inspection, had expired. QC Inspector Walters explained that he was currently performing the inspection from Face "B" on both sides of the weld axis, utilizing a 70 degree angle Lucite wedge attached to a 2.25 MHz frequency transducer. The QA Inspector noted that the Face "A" inspection had been performed by QC Inspector Walters, on the previous day. QC Inspector Walters explained to the QA Inspector that he had previously performed a calibration utilizing an AWS IIW Type 2 Reference Block, in preparation for the angle beam ultrasonic testing of the weld, with a 70 degree angle Lucite wedge, coupled to a 2.25 MHz frequency transducer. QC Inspector Walters explained that at this time, no rejectable or recordable indications were found. The QA Inspector was later informed by QC Inspector Walters that the testing is complete and no rejectable indications were found. QC Walters explained that a total of 4 recordable indications were found and will be listed in the final testing report. The QA Inspector noted that per AWS D1.5 Sect.6.19.8 "Only those discontinuities which are rejectable need be recorded on the test report, except that for welds designated in the contract documents as being "Fracture Critical," ratings which are up to and including 6dB less critical than

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rejectability shall be recorded on the test report”.The QA Inspector noted that the UT performed by QC Inspector Walters, appeared to be in compliance with AWS D1.5 and the applicable testing procedure NP-2244-(13)-01. The QA Inspector was present on this swing shift and performed Ultrasonic Weld Inspection (UT), on the above mentioned weld joint (WJ). The QA Inspector performed the testing from Face “B”, on both sides of the weld axis, utilizing a70 degree transducer angle attached to a 2.25 MHz transducer. The QA Inspector had previously performed the inspection on this area from Face “A” and had found no rejectable or recordable indications. The QA Inspector had previously performed a calibration check with an AWS D1.5 Type 2 IIW metric calibration block. After the testing was complete, the QA Inspector had found no rejectable or recordable indications and completed an applicable Ultrasonic Testing report (TL 6027).

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: 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
