

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-011582**Date Inspected:** 20-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**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, 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:

OIW Fabrication Shop-Bay 6 (ESW Overlay Process)

Hinge-K Pipe Beam Fuse Assembly 120A-8

The QA Inspector witnessed welder WID #F17, Mr. Igor Frolov performing electro slag welding (ESW) on the second layer welding passes, in the flat position. The QA Inspector noted that the second layer was approximately 75% complete and the 316L stainless steel consumable strip, was being utilized. The QA Inspector randomly noticed QC Inspector Jose Salazar was present, to verify in-process welding parameters (amps/volts) and monitor in-process continuous pre-heat temperatures. QC Inspector Salazar explained to the QA Inspector that welding amperage was previously recorded at 1300 amps/25.7 volts, travel speed at 267mm/min. and a pre-heat temperature recorded at 150 degrees Fahrenheit (66 C). The QA Inspector verified the welding parameters and the minimum pre-heat temperatures were in compliance with the applicable WPS 7003. The QA Inspector verified Mr. Igor Frolov was currently qualified for this welding process and position. The QA Inspector noted that the ESW being performed appeared to be in compliance with WPS 7003.

The QA Inspector was present on this swing shift and witnessed WID#V7, Mr. Vincent Vue continuing to perform electro slag welding (ESW) on the second layer ESW welding passes, utilizing the 316L stainless steel consumable strip, in the flat position. The QA Inspector randomly noticed QC Inspector Gary Mundt was present,

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to verify in-process welding parameters (amps/volts) and monitor in-process continuous pre-heat temperatures. QC Inspector Mundt explained to the QA Inspector that welding amperage was previously recorded at 1300 amps/25.5 volts, travel speed of 267mm/min. and a pre-heat temperature recorded at 150 degrees Fahrenheit (66C). The QA Inspector noted that the ESW being performed appeared to be in compliance with WPS 7003.

AG Machining (Boring, OR)

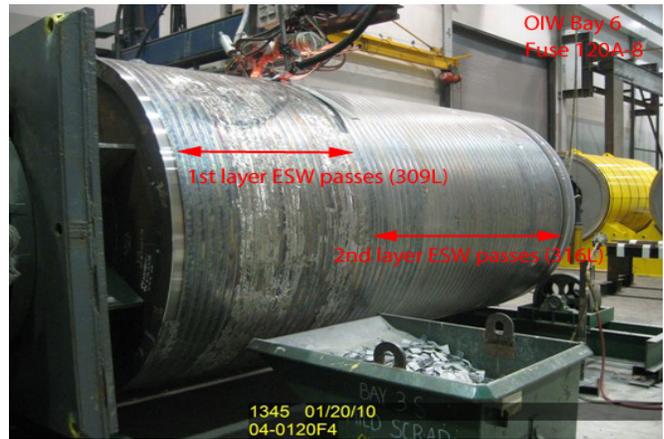
On this date, the QA Inspector arrived at AG Machine shop, to witness the final machining of the Fuse 120A-5. The QA Inspector met with an AG Machinist and he stated that the first cut pass, for final machining, was in-process. The AG Machinists explained to the QA Inspector that the cutting depth was set to remove approximately 1/4" (6mm) of overlay material. The AG Machinists also informed the QA Inspector that this first cut pass was started in the a.m. and no visible indications were present in the overlay, at this time. The QA Inspector noted that the contract requires a final outside diameter finish of 1920mm (+1mm) with a surface finish of .8 μ m. 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: 5 OIW production personnel and 2 QC Inspectors.

The QA Inspector noted that the following personnel were present at AG Machine shop: 1 AG machinist and 1 AG supervisor.

The QA Inspector noted that no work was performed at OIW Vancouver paint shop.



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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
