

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-011466**Date Inspected:** 12-Jan-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:

OIW Fabrication Shop-Bay 6 (ESW Overlay Process)

Hinge-K Pipe Beam Fuse Assembly 120A-8

The QA Inspector was notified by QC Inspector Mike Gregson that the visual and magnetic particle testing (MT) had been previously completed, on this Fuse 120-8. QC Inspector Gregson explained that the visual and MT testing was performed on the exterior, after rough machining, per the contract requirements. QC Inspector Gregson explained that he had completed approximately 75% of the MT testing on the prior day shift and QC Inspector Gary Mundt finished the testing on the swing shift. QC Inspector Gregson explained to the QA Inspector that the MT testing was per OIW procedure QC-113 Rev. #3 and that he had previously marked up minor areas on the entire Fuse, during the visual testing and OIW production then performed minor surface sanding on the areas. QC Inspector Gregson explained that after the sanding was complete, the areas were then visually re-inspected and acceptable. QC Inspector Gregson explained that he then performed the MT testing and found no rejectable indications and that QC Inspector Mundt had also found no rejectable indications, after testing.

The QA Inspector later performed approximately 10% MT testing on random areas of this Fuse 120A-8, on the exterior rough machined surface. The QA Inspector found no rejectable indications and completed the applicable magnetic particle testing report. See TL6028, for details. The QA Inspector notified QC Inspector Gregson of the testing results and QC Inspector Gregson then explained that OIW production will begin the 1st layer electro slag

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welding (ESW) passes. The QA Inspector later witnessed welder WID #F17, Mr. Igor Frolov performing electro slag welding (ESW) on the third layer welding passes, in the flat position. The QA Inspector noted that approximately 10 ESW passes were completed on the 1st layer, utilizing the 309L stainless steel consumable strip. 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 1200 amps/24.5 volts, travel speed at 229mm/min. and a pre-heat temperature recorded at 225 degrees Fahrenheit (100 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 1st layer ESW welding passes, utilizing the 309L stainless steel consumable strip, in the flat position. The QA Inspector randomly noticed QC Inspector Gary Mundt was present, 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 1200 amps/24.5 volts, travel speed of 229mm/min. and a pre-heat temperature recorded at 225 degrees Fahrenheit (100 C). The QA Inspector noted that the ESW being performed appeared to be in compliance with WPS 7003.



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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
