

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-011658**Date Inspected:** 27-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:

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 the AG Machinist and AG explained that he was in process performing the third and final cut pass, for final machining. The AG machinist explained to the QA Inspector that the cutting depth was previously set to remove approximately 1mm of overlay material and that this cut pass will machine the Fuse to the final outside diameter, per the contract requirements. AG explained that this cut pass should be completed in the a.m. on 1/28/10 and honing will then start. AG explained that the honing, or superfinishing, will smooth the entire finished overlay to the required surface finish. The QA Inspector noted that the contract requires a final outside diameter finish of 1920 mm (+1mm) with a surface finish of .8µm. 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.

The QA Inspector observed 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.

WELDING INSPECTION REPORT

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Summary of Conversations:

On this date, Lead QA Inspector Joe Adame informed the QA Inspector that he had spoken with OIW QCM Tom Tomovick, OIW welding engineer Verne Taute, OIW PM Bill Pender and OIW QC Inspector Jose Salazar. QA Inspector Adame explained that there appeared to be OIW welders who were not qualified, that had previously performed the flux core arc welding (FCAW) repairs, to the stainless steel overlay. QA Inspector Adame explained to the QA Inspector that he had reviewed the latest OIW Qualified Welders List, Revision #12 with the above mentioned OIW personell. QA Inspector Adame explained that the OIW welders which appeared not to be qualified were Bounheune Savanh (WID #S74), Igor Frolov (WID #F17) and Vincent Vue (WID #V7). QA Inspector Adame and QA Inspector Vance then reviewed the applicable welding code (AWS D1.6, Sec. 4.7.5) and confirmed that the welders were not currently qualified to perform the welding. The QA Inspectors noted that the welders were qualified to weld on AWS D1.1, Base Metals groups 1 and 2 and not group 4 (A709 HPS70W). After further investigation, the QA Inspectors noted that the welding that appeared to be in non compliance occurred on the following dates by the welders: 1/8/10 FCAW overlay repairs, (swing shift WID #V7), 1/18/10 (day shift WID #F17) and on 1/18/10-1/21/10 (swing shift WID #S74). QA Inspector Adame and Vance noted that the WID #S74 performed the electroslag slag welding (ESW) on Fuse 120A-8 and had exceeded the period of effectiveness, per AWS D1.5. QA Inspector Adame notified OIW of the non conformance and OIW explained that no ESW on the stainless steel overlay or FCAW repairs will be performed by these welders, until the non conformance is resolved. See completed non-conformance report (TL-15), for additional details.

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
