

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-010778**Date Inspected:** 15-Dec-2009**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**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 102A-3: 12/15/09

a111-3 Forging to a110-3 Base Plate

The QA Inspector noted that OIW welder # O6, Mr. Tim O'Brian was continuing to blend the weld start/stops, removing weld spatter and grinding all areas, which were previously marked by OIW QC Inspectors. The QA Inspector noted that these areas were on the previously completed submerged arc welded (SAW), HPS 485W stiffeners, designated as weld joints #W1-01 thru W1-163. The QA Inspector spoke with QC Inspector Jose Salazar and Mr. Salazar explained that the visual clean-up that was being performed by Mr. O'Brian, was intermittently monitored and areas that were completed, were then visually re-inspected.

The QA Inspector randomly performed 100% visual and magnetic particle testing on the following partial penetration joint (PJP) and fillet welds, on the assembly 102A-3, designated as weld joints #W1-138, W1-140, W1-52, W1-63, W1-64 and W1-98. The QA Inspector noted that these weld joints had been previously visually acceptable and 100% magnetic particle testing had been previously performed by OIW QC personell. QA Inspector noted that QC personell had found no rejectable indications. The QA Inspector completed the applicable magnetic particle testing report (TL 6028).

Hinge-K Pipe Beam Assembly 102A-1: 12/15/09

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a111-1 Forging to a110-1 Base Plate

The QA Inspector noted that this assembly 102A-1, had been previously placed in position and welder #T23, Mr. John Tellone, was currently in-process of performing submerged arc welding (SAW) on the a109 Post Tension Cap Plate to ab106 stiffener. The QA Inspector noted that this weld joint was designated as #W2-24/partial joint penetration (AWS D1.5 TC-P4-S) and Mr. Tellone was performing the SAW in the flat (1G) position. The QA Inspector noted that Mr. Tellone was utilizing OIW approved welding procedure specification (WPS 4020). The QA Inspector noted that QC Inspector Jose Salazar, was present and intermittently verified the in-process welding parameters and pre-heat temperatures. The QA Inspector spoke with QC Inspector Jose Salazar and Mr. Salazar explained that welding parameters were recorded at 563 amps/35 volts, with a pre-heat of approximately 350 degrees Fahrenheit (177 C). The QA Inspector randomly verified pre-heat of approximately 350 degrees Fahrenheit (177 C). The QA Inspector noted that the SAW performed by Mr. Tellone appeared to be in compliance with AWS D1.5 and WPS 4020.

AG Machining (Boring, OR)

Hinge-K Pipe Beam Fuse Assembly 120A-1: 12/15/09

On this date, the QA Inspector arrived at AG Machine shop to witness OIW prepare this Fuse 120A-1, for transport back to OIW. QA Inspector met with AG machinist and AG explained that OIW PM Bill Pender had previously arrived and had wrapped a thermal blanket, around the Fuse 120A-1. AG explained to the QA Inspector that OIW will be arriving on 12/16/09 to install the protective metal shrouds and banding, around the thermal blanket. The QA Inspector noted that the thermal blanket and shrouding will be utilized to protect the final finished stainless steel overlay, on this Fuse 120A-1, from damage (gouges, nicks, etc.) during transport, per the contract requirements. See attached picture 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 1 QC Inspector. 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.



Summary of Conversations:

As noted above.

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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
