

**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-013879**Date Inspected:** 06-May-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

<b>CWI Name:</b>	M. Gregson, J. Salazar, G. Mundt	<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>
<b>Inspected CWI report:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b> <b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b> <b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b> <b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b> <b>No</b>	<b>N/A</b>
		<b>Delayed / Cancelled:</b>	<b>Yes</b> <b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006	<b>Component:</b>	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-4:**

The QA Inspector observed that the Submerged arc Welding (SAW) had been completed on the previous grave yard shift, on the weld Joint #W4-01. The QA Inspector noted that this was the Complete Joint Penetration (AWS D1.5 B-U7-S), 120A-4 Fuse to 102A-4 Forging. The QA Inspector observed that an OIW production helper was grinding on the completed weld cap from the outside of the joint. The QA Inspector noted that the contract requires this weld cap to be ground flush with the adjacent base material. The QA Inspector observed that the helper was utilizing a hand held mechanical grinder with an attached 9" disc, to perform the grinding. The QA Inspector observed that OIW Production Lead Troy Smith was present on this shift. Lead Troy Smith explained that the grinding will probably continue the entire shift and swing shift production personnel will probably resume this activity.

The QA Inspector was present on this swing shift and observed WID #B10 (Liem Bui) resume the grinding on the weld joint #W4-01, in the same manner as mentioned above. The QA Inspector observed that OIW Production Lead Carl Johnston was present, on this shift. Lead Carl Johnston explained that the grinding will probably continue the entire shift and Grave will continue, if not completed. The QA Inspector observed that no welding was performed on this assembly, on this date.

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## WELDING INSPECTION REPORT

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Hinge-K Pipe Beam Assembly 102A-3:

The QA Inspector observed that WID #B62 (Marcus Belgarde) was setting up the Cooperheat ceramic blankets, in preparation for the Submerged Arc Welding (SAW), on weld joints #W2-01 and #W2-02. The QA Inspector observed that OIW Production Lead Troy Smith was present on this shift and Lead Troy Smith explained that the assembly had been previously picked up from the shop floor and placed vertically upright to set up the Cooperheat and SAW equipment. Lead Troy Smith explained that the overhead Bay Shop crane and slings had been utilized to perform this activity.

The QA Inspector was present on this swing shift and observed that the Cooperheat was currently heating the weld joint and no activity was performed on swing shift on the assembly.

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.

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<b>Inspected By:</b>	Vance,Sean	Quality Assurance Inspector
<b>Reviewed By:</b>	Adame,Joe	QA Reviewer

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