

**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-013442**Date Inspected:** 26-Apr-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 102A-4:**

The QA Inspector observed WID # (Craig Jacobson) and WID #B62 (Marcus Belagarde) attaching a pre-fabricated clamp to the a109 Cap and a110 Base plate. The QA Inspector observed that OIW Production Lead Troy Smith was present on this shift. Lead Troy Smith explained that the clamp was being placed and will be tightened, in preparation to move the assembly to the welding positioner. Lead Troy Smith explained that once the clamp is tightened that slings will be attached to the clamp and then the overhead Bay Crane will be utilized, to pick up the assembly and place in the positioner. The QA Inspector noted that OIW will eventually fit and weld this 102A-4 Forging assembly to the 120A-4 Fuse assembly.

**Hinge-K Pipe Beam Assembly 102A-3:**

The QA Inspector observed WID #J6 (Craig Jacobson) performing post heat on the CWR #2244-024. The QA Inspector noted that the piece marks are identified as c107 to a107, weld joint #W1-118 and d108 to ab106, weld joint #W1-103. Mr. Jacobson explained that the Flux Core Arc Welding was previously completed and the post heat was being applied to maintain a temperature range of 446-600 degrees Fahrenheit. Mr. Jacobson explained that two oxygen acetylene torches, attached to stationary stands, were previously set-up. Mr. Jacobson explained that he was periodically checking the temperature with a 450 and 600 degree Fahrenheit Tempilstick indicator and

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that the post heat will continue for two hours. The QA Inspector observed Mr. Jacobson performing this check. The QA Inspector then spoke with OIW QC Inspector Jose' Salazar, who was present on this shift. QC Inspector Salazar explained that he was present at the time of welding and had recorded in-process welding parameters. QC Inspector Salazar explained that the parameters were recorded at 265 amps, 27 volts and a travel speed of inches per minute.

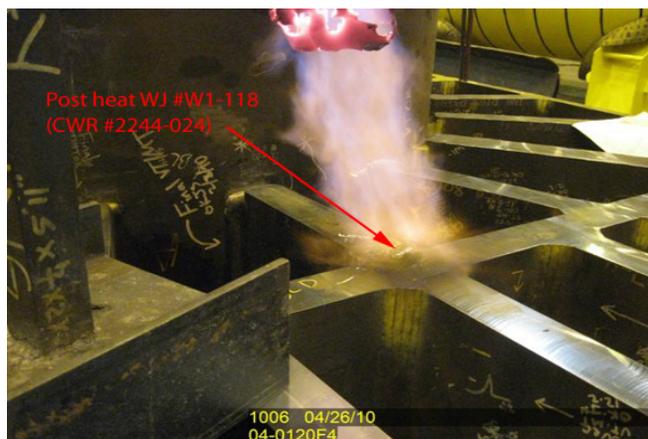
The QA Inspector later observed OIW continue the post heat for the remainder of the two hours and noted that the above mentioned activities appeared to be in compliance with AWS D1.5 and the applicable CWR #2244-024. See attached pictures below.

## 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: 4 OIW production personnel and 2 QC Inspectors.

## Summary of Conversations:

The QA Inspector was informed by Lead QA Inspector Joe Adame, that OIW has picked up the Hinge K Pipe Beam Assembly # 101A-2 this morning and transferred to Vancouver WA. painting facility. QA Inspector Adame explained that OIW had placed a flatbed trailer in the Production Bay 3 and utilized the overhead Bay Crane to lift and place the assembly on the trailer. The QA Inspector noted that this assembly will eventually be primed and painted, in Vancouver.



## 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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