

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-013936**Date Inspected:** 07-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

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|------------------------------------|----------------------------------|----------------------------------|------------|----------------------|
| 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:

Hinge-K Pipe Beam Assembly 101A-4:

The QA Inspector observed that the grinding flush of the weld cap, on weld joint #W4-01, had been completed on the previous graveyard shift. The QA Inspector observed that OIW QC Inspector Jon Nickolich had performed a preliminary visual inspection on the weld joint and had accepted. The QA Inspector observed that OIW Lead QC Inspector Mike Gregson was present on this shift and QC Inspector Gregson explained that the Magnetic Particle and Ultrasonic testing will be performed on 5/10/10. QC Inspector Gregson explained that the weld had cooled to ambient temperature at 0700, on this date. The QA Inspector noted that per AWS D1.5 Cooling Times Prior to Inspection, a minimum of 72 hrs. is required for final Visual, Ultrasonic and Magnetic Particle testing. See attached picture below.

Hinge-K Pipe Beam Assembly 102A-3:

The QA Inspector observed WID #B62 (Marcus Belgarde) performing submerged Arc Welding (SAW) on weld joint (W2-01). The QA Inspector observed that WID #B62 was performing the SAW in the flat position and was currently qualified for this. The QA Inspector noted that this weld joint was a partial penetration, AWS D1.5 TC-P4-S, a109 Post Tension Cap plate to b106 HPS 485 W stiffener. The QA Inspector observed that OIW QC Inspector Jose' Salazar was present at the time of welding and QC Inspector Salazar explained that he was

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intermittently checking the welding parameter amps, volts, travel speed and pre-heat temperatures. The QA Inspector randomly observed QC Inspector verify welding amperage of 650 amps, 34 volts and a travel speed of 20 inches per minute. The QA Inspector observed that the fill passes were currently in process and that the parameters were in compliance with the applicable Welding Procedure Specification (WPS) 4020. The QA Inspector then performed a pre-heat check and recorded a temperature of approximately 350 degrees Fahrenheit. The QA Inspector observed that OIW Production Lead Troy Smith was present on this shift and Lead Troy Smith explained that the SAW will continue throughout the entire shift. The QA Inspector noted that the above mentioned SAW appears to be in compliance with the applicable WPS.

The QA Inspector was present on this swing shift and observed no work performed on this 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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| Inspected By: | Vance,Sean | Quality Assurance Inspector |
| Reviewed By: | Adame,Joe | QA Reviewer |
