

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-008695**Date Inspected:** 28-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR**CWI Name:** Mike Gregson, Jose 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:

OIW Fabrication Shop-Bay 3

Hinge-K Pipe Beam Assembly 102A-1: 8/28/09

a111-1 Forging to a110-1 Base Plate

QA Inspector noticed that OIW production personell were grinding and performing weld clean-up, on the PJP and fillet welds stiffeners to a111-1 forging and a107/b106 stiffeners. QA Inspector spoke with QC Inspector William Buck and Mr. Buck explained that OIW production personell were continuing to blend the weld start/stops, removing weld spatter and repairing undersize welds in specific areas, which were previously marked by QC Inspector Jose Salazar. Mr. Buck also explained that the completed fillet and PJP welds on the radial stiffeners, which were found to be visually acceptable per AWS D1.5 and contract requirements, were in process of 100% magnetic particle testing. QA Inspector reviewed the applicable magnetic particle testing reports and noted that Mr. Buck had performed testing on the following weld joints: #W1-80, W1-82, W1-84, W1-121, W1-123, W1-125, W1-127, W1-129 and W1-131. QA Inspector noted that no rejectable indications were found and the magnetic particle testing by OIW QC Inspector William Buck, appeared to be in compliance with AWS D1.5 and contract requirements.

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OIW Fabrication Shop-Bay 6 (ESW Overlay Process)

Hinge-K Pipe Beam Fuse Assembly 120A-7: 8/28/09

a124-5 Half Fuse to a124-15 Half Fuse

QA Inspector noticed that the second ESW stainless steel overlay passes were in-process, on this fuse assembly 120A-7. QA Inspector witnessed welder #V7, Mr. Vincent Vue performing electro slag welding (ESW) on the second layer welding passes, (approximately 75% complete), in the flat position, utilizing Soudokay brand Soudotape 316L stainless steel consumable strip. QA Inspector noted the first layer passes were completed utilizing the 309L consumable strip and the remaining second (in-process) & third layer passes would be completed utilizing Soudokay brand Soudotape 316L stainless steel consumable strip, per contract requirements. QA Inspector randomly noticed QC Inspector William Buck was present, to verify in-process welding parameters (amps/volts) and monitor in-process continuous pre-heat temperatures. QA Inspector spoke with QC Inspector William Buck and Mr. Buck explained that welding amps were recorded as 1200 amps/25.2 volts, travel speed at 241mm/min. and a pre-heat temperature recorded at 70 Fahrenheit (21 C). QA Inspector verified Mr. Vincent Vue was currently qualified for this welding process/position and randomly recorded pre-heat temperatures of approximately 70 Fahrenheit (21 C). QA Inspector noted that Mr. Vincent Vue appeared to be in compliance with the applicable approved welding procedure specification (WPS 7003). See attached picture below.

Material, Equipment, and Labor Tracking

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project. The QA Inspector observed at Oregon Iron Works: 3 OIW production personnel and 1 QC Inspector.



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.

Inspected By: Vance, Sean

Quality Assurance Inspector

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Reviewed By: Adame,Joe

QA Reviewer