

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-012643**Date Inspected:** 15-Mar-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**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:

AG Machining (Boring,OR)

On this date, the QA Inspector arrived at AG Machine to observe OIW continue to perform the informal penetrant testing and possible weld repairs, on the finished overlay surface, on this Fuse 120A-7. The QA Inspector met with OIW QC Inspector Jose Salazar, OIW welder (WID# C34) Mark Craig and an AG Machinist. QC Inspector Salazar explained to the QA Inspector that he was instructed to arrive at AG, to continue the informal PT on 100% of the overlay and WID #C34 will then continue to perform the excavations and possibly perform the GTAW weld repairs. The QA Inspector noted that the indications, currently present in the overlay, appeared after AG completed the final cut pass and 2 finish honing, passes. QC Inspector Salazar informed the QA Inspector that per the approved OIW Liquid Penetrant testing (PT) procedure QC-114 the piece to be examined should be at a minimum of 70 degrees Fahrenheit. For this inspection OIW are attempting to locate any discrepancy that would need to be repaired prior to final inspection. Once all repairs are complete, OIW will later perform a formal PT inspection on 100% of the Fuse overlay per the approved PT procedure. The QA Inspector witnessed QC Inspector Jose Salazar in process of cleaning "sections" on the overlay with acetone/cleaner and also later applying penetrant and developer. The QA Inspector spoke with QC Inspector Salazar, who explained that any surface indications that were present during the informational PT testing, would be marked for repairing and OIW WID #C34, would then grind out and possibly perform GTAW on the repairs. QC Inspector Salazar informed the QA Inspector that

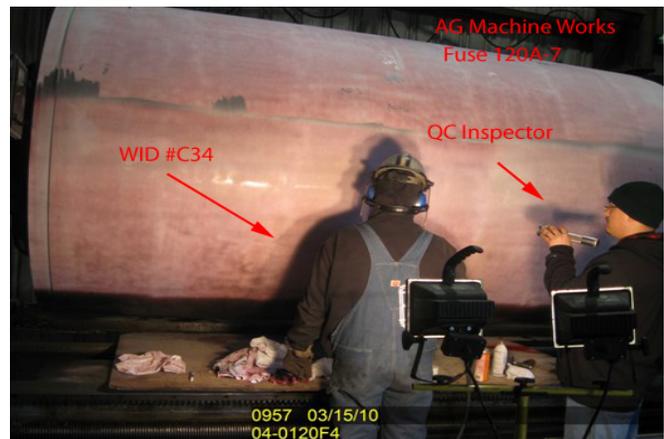
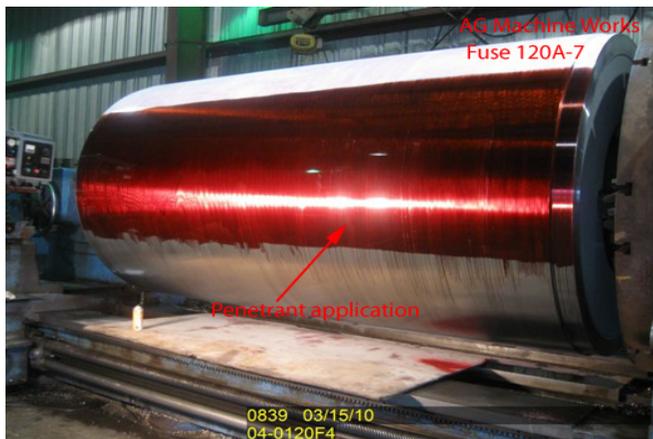
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multiple indications were present, during the PT testing, which appeared to be small clusters of slag inclusions. The QA Inspector witnessed WID #C34, grinding out these indications, to a depth of .5-1 mm, with the longest indication approximately 160 mm and no greater than 3 mm wide. At approximately 1500, the QA Inspector noted that QC Inspector Salazar had performed the informal PT on the remaining 50% of the entire Fuse. The QA Inspector noted that all of the indications that were discovered were then excavated by WID #C34. The QA Inspector noted that there were approximately 20 additional indications, which were discovered and excavated, on this date. QC Inspector Salazar explained there was now a total of approximately 40 excavations and will be arriving at AG on 3/16/10, to perform the GTAW. 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: 2 OIW production personnel and 2 QC Inspectors. The QA Inspector observed at AG Machine shop. 1 AG Machinist, 1 AG Supervisor, 1 OIW Welder and 1 OIW QC.



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

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Materials for your project.

Inspected By:	Vance,Sean	Quality Assurance Inspector
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Reviewed By:	Adame,Joe	QA Reviewer
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