

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-010792**Date Inspected:** 22-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 100**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR

CWI Name:	N/A	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	

Summary of Items Observed:

On this date, Caltrans Quality Assurance Lead Inspector (QA) Joe Adame was present for a conference call at Oregon Iron Works, Inc. (OIW) in Clackamas, OR to discuss an issue relative to the fabrication of the Hinge K Pipe Beams. The following was documented:

AB/OIW/CT Conference call (RFI 1990 R0): The QA Inspector participated in a conference call as requested by American Bridge Representative (AB) Sabrina Levine to discuss AB (RFI) 1990 Revision 0. The teleconference meeting started with roll call. The following attendees were accounted for: Sabrina Levine-AB/Fluor JV, Bob Kick- AB/Fluor JV, Pat Leonard-OIW, Bill Pender-OIW, Mohammad Fatemi-CT SMR, Warren Collins CT-Construction & Joe Adame CT-Mets QA.

On 12/07/2009 OIW had submitted RFI 1990 to address the mill to bear (MTB) gap issue on Forging base 102a-4 cap plate to stiffener location. Onsite QA had discovered a 3 mm gap at cap plate to stiffener location adjacent to the Forging. Per the project requirements the plate surface should be approx 75% contact. The gap at the specific location occurred after welding and possibly from the cap plate not being restrained sufficiently in this area. OIW is requesting: To approve the weldment as is. OIW further requested that the remaining Hinge K Pipe beam cap plate to base plate weldments fall within the identified parameter of 3 mm, they too will be acceptable and approved "As is".

OIW: Pat Leonard stated that he believes the cap plate to forging base MTB area would not come into "contact" with the application of heat. Mr. Leonard also stated that through attaching 1-3/4' rods OIW were able to bring the cap plate to forging base MTB area within 2 mm gap. Mr. Leonard explained that after releasing the rods the cap

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plate relaxes back to the current state with a gap of approx 3 mm. Mr. Leonard also stated that once the Fuse assemblies are installed on site with the anchor rods and torqued with the required force the cap late will be in full contact. Mr. Leonard and Mr. Pender stated the feel they have met the requirements of the project by fitting up and welding with 100% MTB surface at the locations in question. The OIW reps feel that gap does occur after cooling and relaxing and cannot be avoided due to design. Mr. Leonard also stated that per the commentary of AWS D1.5 it states that it is not essential that all parts bear completely before all loads are applied.

CT: Mohammad Fatemi did discuss with OIW that this particular Assembly may be acceptable with a gap no greater than 3 mm. Mr. Fatemi also inquired if OIW are performing additional steps to avoid a similar gap issue on the next Assembly. Mr. Collins also informed OIW that he is not directing OIW to install additional rods into the second assembly but would like to see additional measures performed as courtesy.

OIW: Pat Leonard stated that OIW could install additional 1-3/4" rods to avoid excessive gap on the second assembly. Mr. Leonard also inquired if the first assembly is approved. Mr. Leonard final comments were that OIW is proceeding with the fabrication of the forging bases.

CT: Warren Collins stated that he would revise CT comments on the RFI. Mr. Collins also informed Mr. Leonard that he will consult with CT colleagues before a formal approval is given to the RFI 1990 Rev.0.

Summary of Conversations:

As noted in the contents of this report.

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:	Adame,Joe	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer
