

**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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014990**Date Inspected:** 16-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	Bernard Docena, Jesse Cayabyab	<b>SWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes	No N/A
		<b>Delayed / Cancelled:</b>	Yes	No N/A
<b>Bridge No:</b>	34-0006	<b>Component:</b>	SAS OBG	

**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above.

The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified 4W/5W-D, 3W/4W-C, 1W/2W-D/S and the following observations were made:

**4W/5W-D**

Upon the arrival of the QA Inspector at the above identified location, it was observed the submerged arc welding had been completed. The QA Inspector randomly observed the ABF welder Mike Maday was performing shielded metal arc welding repairs of the submerged arc welding (SAW) cover pass. The QA Inspector noted the Smith Emery (SE) Quality Control (QC) Inspector Bernard Docena was present at the time of the repairs. The QC Inspector informed the QA Inspector several areas of under fill did require additional welding to complete the cover pass of the CJP groove weld. The QA Inspector randomly observed approximately 4 locations of under fill which ranged from 2mm-3mm in depth. The QA Inspector noted the ABF welder identified above was performing grinding and welding of the indicated under filled areas. The QA Inspector noted the ABF welder was performing the SMAW repairs for the remainder of the shift.

**2W/3W-E**

The QA Inspector randomly observed the ABF welder Rick Clayborn and ABF helper excavate and repair 3 areas of the CJP groove weld. The QA Inspector noted the areas had been previously tested and rejected and were indicated directly on the weld. The QA Inspector observed the ABF helper excavate the areas with a burr bit grinder from the inside of the of the OBG. The QA Inspector randomly observed the ABF helper excavate area between Y=880mm-930mm, 3550mm-3630mm in weld segment E1 and 2470mm-2650mm in weld segment E2.

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The QA Inspector randomly observed the ABF welder Rick Clayborn setting up to perform shielded metal arc welding of the areas previously excavated by the ABF helper. The QA Inspector noted no welding was performed on the QA Inspectors shift for the above identified excavated area.

## 1W/2W-B

The QA Inspector randomly observed the ABF welder identified as Chun Fai Tsui performing plasma arc gouging of the steel backing bar. The QA Inspector randomly observed the ABF welder complete the plasma arc gouging and begin performing grinding tasks. The QA Inspector randomly observed the in process back gouge and noted several slag pockets were visible at the time of the inspection. The QA Inspector randomly observed the ABF welder spend the remainder of the shift performing the grinding. The QA Inspector noted the back gouged joint appeared to be

## 1W/2W-D/S

#2

The QA Inspector randomly observed the ABF welder identified as James Zhen excavating a ultrasonic testing (UT) rejection previously indicated in the longitudinal stiffener vertical CJP. The QA Inspector randomly observed the area being excavated was previously identified and designated as a third time repair. The QA Inspector noted third time repairs do require prior written engineering approval prior to performing any repairs. The QA Inspector noted the 1W/2W-D/S #2 longitudinal stiffeners appeared to be 80% excavated upon the arrival of the QA Inspector. The QA Inspector noted the SE QC Inspector Tom Pasqualone was present at the time of the QA Inspectors arrival (see summary of conversation). The QA Inspector wrote and submitted an incident report for the above issue. The QA Inspector noted the non conforming issue is in direct violation of the Caltrans Special Provisions section 8-3 Field Welding. In addition the QA Inspector observed and noted 3 UT rejects in stiffeners identified as #5 and #6. The QA Inspector noted no repairs had been started or repaired at the time of the QA Inspectors arrival.

The QA Inspector asked the QC Inspector Tom Pasqualone, why the contractor was excavating the vertical CJP of the stiffener prior to receiving engineering approval. The QC Inspector Tom Pasqualone informed the QA Inspector he was aware the contractor needed prior engineering approval to perform the repair. The QC Inspector went on to inform the QA Inspector, he informed the QC Inspector Bill Norris of the non conforming issue. The QC Inspector said Mr. Norris relayed the issue to the WQCM Jim Bowers. Mr. Pasqualone informed the QA Inspector he can not and will not stop any work from being performed. Mr. Pasqualone went on to inform the QA Inspector all he can do is document and report on the repair as the contractor elects to proceed at their own risk.

The QA Inspector asked the ABF Welding Superintendent Dan Ieraci if he was aware of the requirement to acquire prior written engineering approval to perform any repairs of third time NDT rejection. Mr. Ieraci informed the QA Inspector he was aware of the requirement. The QA Inspector asked Mr. Ieraci why the ABF welder was performing such a repair currently. Mr. Ieraci informed the QA Inspector he was unaware the ABF welder was moving forward with the repair.

## 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

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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>	Bettencourt,Rick	Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell,Bill	QA Reviewer
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