

**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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028386**Date Inspected:** 12-Sep-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below.**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:** OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

**In Process Visual Inspection**

RWR 201209-075

This QA observed, at random intervals, ABF/JV qualified welder Rick Clayborn #2773 performing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E9018-MH4-R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1012-3. The joint being welded was a 35mm thick internal longitudinal stiffener butt splice designated as LS#3 on the underside of the "A" deck plate, 12W-PP111. 1-LS3 segment splice location. This was a 4th time repair.

During welding, ABF Quality Control (QC) Pat Swain was noted monitoring the welding parameters.

Dimensions of the rejectable indication are as follows:

Y= 45mm

L= 30mm

X= -5

D= 25mm (from Face A)

Excavation from Face A:

Start Time – 8:50

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End Time – 9:55

This QA observed QC Pat Swain performing Magnetic Particle Testing (MT) and visual confirmation of gouging procedure at each 4mm of depth removed. Mr. Swain observed no recordable or rejectable indications at time of confirmation.

Material was removed to a depth of 23mm (65 percent of material thickness). The back gouge was ground to shiny metal and MT was performed by QC Swain. No rejectable indications were observed at time of testing.

Measurements for this excavation were recorded as:

L= 115mm

W= 80mm

D= 23mm

Welding from Face A:

Start Time – 10:55

End Time – 14:30

This QA observed QC Pat Swain performing verification of preheat at approximately 10:53. Welding procedure was not completed before the noon break. Mr. Swain again verified preheat at 12:35 before the welding procedure was continued. This QA observed Mr. Swain perform MT and visual verification of in-process weld layers at 30 minute intervals to ensure innerpass cleanliness. Mr. Swain observed no rejectable indications at the time of verification.

Excavation of Face B:

Start Time – 14:40

End Time – 15:10

This QA observed QC Pat Swain performing Magnetic Particle Testing (MT) and visual confirmation of gouging procedure at each 4mm of depth removed. Mr. Swain observed no recordable or rejectable indications at time of confirmation.

Material was removed to a depth of 15mm to ensure complete removal of pre-existing weld material. The back gouge was ground to shiny metal and MT was performed by QC Swain. No rejectable indications were observed at time of testing.

Measurements for this excavation were recorded as:

L= 90mm

W= 85mm

D= 15mm

Welding from Face B:

Start Time – 15:20

End Time – 18:45

This QA observed QC Pat Swain performing verification of preheat at approximately 15:08. Welding procedure was not completed before the 15:30 break. Mr. Swain again verified preheat at 16:02 before the welding procedure was continued. This QA observed Mr. Swain perform MT and visual verification of in-process weld layers at 30 minute intervals to ensure innerpass cleanliness. Mr. Swain observed no rejectable indications at the time of verification.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract

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documents.

**Summary of Conversations:**

Conversations were relevant to work performed.

**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 Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Clifford,William	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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