

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023098**Date Inspected:** 27-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** John Pagliero**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:** SAS OBG**Summary of Items Observed:**

Quality Assurance inspector (QA) Douglas Frey 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:

1. 10W 11W Longitudinal Stiffener #1
2. 10W 11W Longitudinal Stiffener #4
3. 9W 10W E (outside)
4. 7W PP 35W4 Lifting Lug Holes 2 & 4 Visual Inspection
5. 7W PP55 W3 Lifting Lug Holes 1-4 Visual Inspection
6. 7W PP56 W3 Lifting Lug Holes 1-3 Visual Inspection
7. 7W PP55 W3 Lifting Lug Holes 1-4 Magnetic Particle Inspection
8. 7W PP56 W3 Lifting Lug Holes 1-3 Magnetic Particle Inspection
9. 7W PP55 W3 Lifting Lug Holes 1-4 Ultrasonic Inspection
10. 7W PP56 W3 Lifting Lug Holes 1-3 Ultrasonic Inspection

1. 10W 11W Longitudinal Stiffener #1

The QA Inspector periodically observed the in process Shielded Metal Arc Welding (SMAW) being performed in the 3G vertical position by ABF welder Hua Qiang Hwang on the Longitudinal Stiffener (LS)#1. QC Inspector John Pagliero was noted to be present in order to monitor the progress and ensure the welding parameters were within the established Welding Procedure Specification (WPS). The work continued throughout the QA

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inspector's shift. The QA Inspector noted that the work was completed on this date and appeared to be in general conformance with the contract documents.

## 2. 10W 11W Longitudinal Stiffener#4

The QA Inspector periodically observed the in process SMAW being performed in the 3G vertical position by ABF welder Jin Pei Wang on the LS#4. QC inspector Steve McConnell was noted to be present in order to monitor the progress and ensure the welding parameters were within the established WPS. The QA Inspector randomly observed the welder throughout the day and noted that the work was in progress at the end of the QA Inspector's shift. The QA Inspector noted that the work appeared to be in general conformance with the contract documents.

## 3. 9W 10W E (outside)

The QA Inspector noted and periodically observed ABF welding operators Rory Hogan and Jeremy Dolan performing the grinding/cleaning operations for face D on the outside of the OBG. The welding operators continued setting the equipment up and began welding with QC inspector Steve McConnell noted as being present in order to monitor the work and review the cleaned weld joint. The work progressed throughout the QA Inspector's shift. The QA Inspector noted that the work appeared to be progressing in general conformance with the contract documents.

## 4. 6W PP35 W3 Lifting Lug Holes 2 & 4 Visual Inspection

The QA Inspector performed a Visual Inspection (VT) of Lifting Lug Hole's (LLH) 2 & 4 located at 6W PP35 W3 inside of the OBG. The VT was requested by QC Inspector John Pagliero upon completion of the work by ABF welder Mike Jiminez. The QA Inspector noted that it appeared that no indications were present and the work was found to be acceptable.

## 5. 7W PP55 W3 Lifting Lug Holes 1-4 Visual Inspection

The QA Inspector performed a Visual Inspection (VT) on the LLH's 1 – 4 identified as 7W PP55 W3. The QA Inspector tested the weld to verify the weld and testing by the QC Inspector meet the requirements of the contract documents. The QA Inspector noted that the work appeared to be free of defects and was found to be acceptable and in general conformance with the contract documents.

## 6. 7W PP56 W3 Lifting Lug Holes 1-3 Visual Inspection

The QA Inspector performed a Visual Inspection (VT) on the LLH's 1 – 3 identified as 7W PP56 W3. The QA Inspector tested the weld to verify the weld and testing by the QC Inspector meet the requirements of the contract documents. The QA Inspector noted that the work appeared to be free of defects and was found to be acceptable and in general conformance with the contract documents.

## 7. 7W PP55 W3 Lifting Lug Holes 1-4 Magnetic Particle Inspection

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The QA Inspector performed a Magnetic Particle Test (MT) on the LLH's 1-4 identified as 7W PP55 W3. The QA Inspector tested 10% of the weld to verify the weld and testing by QC meet the requirements of the contract documents. The QA Inspector noted that the work appeared to be free of defects and was found to be acceptable and in general conformance with the contract documents.

### 8. 7W PP56 W3 Lifting Lug Holes 1-3 Magnetic Particle Inspection

The QA Inspector performed a Magnetic Particle Test (MT) on the LLH's 1-3 identified as 7W PP56 W3. The QA Inspector tested 10% of the weld to verify the weld and testing by QC meet the requirements of the contract documents. The QA Inspector noted that the work appeared to be free of defects and was found to be acceptable and in general conformance with the contract documents.

### 9. 7W PP55 W3 Lifting Lug Holes 1-4 Ultrasonic Inspection

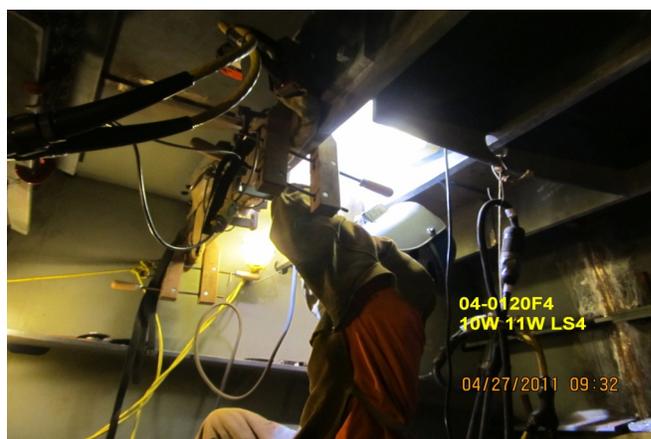
The QA Inspector performed Ultrasonic Testing on the LLH's 1-4 located at 7W PP55 W3. The QA Inspector utilized a G.E./Krautkramer USN 60. The QA Inspector also utilized the UT Procedure identified as SE-UT-D1. 5-CT-100 Rev.4 during the examination. Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

### 10. 7W PP56 W3 Lifting Lug Holes 1-3 Ultrasonic Inspection

The QA Inspector performed Ultrasonic Testing on the LLH's 1-3 located at 7W PP56 W3. The QA Inspector utilized a G.E./Krautkramer USN 60. The QA Inspector also utilized the UT Procedure identified as SE-UT-D1. 5-CT-100 Rev.4 during the examination. Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

### 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 Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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