

**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-027424  
**Date Inspected:** 09-Apr-2012

**Project Name:** SAS Superstructure  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV  
**Contractor:** American Bridge/Fluor Enterprises, a JV

**OSM Arrival Time:** 700  
**OSM Departure Time:** 1730  
**Location:** Job Site

<b>CWI Name:</b>	See Below	<b>CWI 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>	OBG/Tower	

**Summary of Items Observed:**

At the start of the shift this Quality Assurance Lead Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) Quality Control (QC) personnel. The observations and inspections were performed as noted below:

A). This Quality Assurance Lead Inspector (QALI) assigned the QA Inspectors to the following, but not limited to the work station(s) listed, to observe the welding and the QC inspection of the following:

Joselito Lizardo-Tower, 9 Meter El. (Observed the welding, QC inspection of diaphragm plate to shear plate, drop-in plates, perimeter channels and fit lugs).

Ken Riley- OBG E12 and W12 (Observation of welding and QC inspection of deck access holes).

Doug Frey-OBG E8 (Observation of the welding, QC inspection and testing of the longitudinal stiffeners) and Tower 13 Meter El. (Observation of welding and QC inspection of diaphragm plate) and QA/NDE verification.

Dan Smith-OBG W6 and E8 (Observation of welding and QC inspection of the longitudinal stiffeners) OBG W5 (Observation of welding and QC inspection and testing of deck access hole.) and FW Spencer (Observation of welding and QC inspection of mechanical piping).

Art Peterson-Skyway/ CCO-193 (Modification to the existing bike path panels at the expansion joint on the Skyway portion of the SFOBB East Span.

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# WELDING INSPECTION REPORT

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NOTE: See QA daily Weld Inspection Reports (WIR) and NDE reports for additional information and details.

## Quality Assurance Lead Inspector (QALI) Summary

This QA Lead Inspector (QALI) observed the QA Inspector's Joselito Lizardo, Art Peterson, Doug Frey, Dan Smith and Ken Riley monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures for compliance with the contract specifications. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift, this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications and no issues were noted.

## Tower

The QAI also observed the continued Submerged Arc Welding (SAW) process of the diaphragm plate identified as Weld Number (WN): 112. The welding was performed by the welding operator James Zhen ID-6001 utilizing the Welding Procedure Specification (WPS) ABF-WPS-D15-4062-1 Rev. 0. The WPS was also used by the Quality Control (QC) Inspector, Fred Von Hoff, to monitor the welding and to perform QC inspection for compliance. The QAI observed Mr. Von Hoff verify the welding parameters and were noted as follows: 550 amps, 32.0 volts and a travel speed measured at 380 mm per minute. The calculation of the heat input was also noted as 2.77 kJ/mm by the QC inspector. The minimum preheat temperature of 140 degrees Celsius and the maximum interpass temperature of 230 degrees Celsius appeared to comply with the contract specifications.

### Summary of Conversations:

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

### 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>	Reyes,Danny	Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell,Bill	QA Reviewer
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