

**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-026566  
**Date Inspected:** 24-Oct-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:** Job Site

|                                    |                                |           |            |                                  |            |           |            |
|------------------------------------|--------------------------------|-----------|------------|----------------------------------|------------|-----------|------------|
| <b>CWI Name:</b>                   | Fred Von Hoff and Steve Jensen |           |            | <b>CWI Present:</b>              | <b>Yes</b> | <b>No</b> |            |
| <b>Inspected CWI report:</b>       | <b>Yes</b>                     | <b>No</b> | <b>N/A</b> | <b>Rod Oven in Use:</b>          | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
| <b>Electrode to specification:</b> | <b>Yes</b>                     | <b>No</b> | <b>N/A</b> | <b>Weld Procedures Followed:</b> | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
| <b>Qualified Welders:</b>          | <b>Yes</b>                     | <b>No</b> | <b>N/A</b> | <b>Verified Joint Fit-up:</b>    | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
| <b>Approved Drawings:</b>          | <b>Yes</b>                     | <b>No</b> | <b>N/A</b> | <b>Approved WPS:</b>             | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
|                                    |                                |           |            | <b>Delayed / Cancelled:</b>      | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
| <b>Bridge No:</b>                  | 34-0006                        |           |            | <b>Component:</b>                | SAS OBG    |           |            |

**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At Cross Beam #7 inside, this QA randomly observed ABF welder Mike Jimenez perform multiple position fillet welding between 3" x 3" x 3/8" thick angular to same for electrical Cable Tray Support (CTS). The welder was noted using Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode. ABF QC Steve Jensen was observed monitoring the welder with 125 Amps measured current during welding.

The fillet welding on Cable Tray Support inside the Cross Beams is being welded per ABF/JV drawing number CTS20-0 pages 1 to 5 with Caltrans reference Standard 75-1.03. At the end of the shift, fillet welding was still continuing and should remain tomorrow.

At Tower South Shaft elevation 53 meters, QA randomly observed ABF welder Todd Jackson continuing to perform 3F (vertical) fillet welding on a relocated two 20mm thick gusset plates to Tower skin plate 'D' for service platform connection. The two gusset plates were relocated due to wrong orientation to the service platform. The welder was observed using Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode. The gusset and tower skin plates paint coating was ground off and the plates were preheated to more than 225 degrees Fahrenheit prior welding. ABF QC Fred Von Hoff was noted monitoring the welder with 128 amps measured working current during welding. During the shift, the 10mm fillet welded on both sides of the two gusset plates were completed.

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FW Spencer:

At location Panel Point PP57 to PP59 of grid line E5, this QA randomly observed FW Spencer qualified welder Curtis Jump perform Complete Joint Penetration (CJP) 6G (all position) Shielded Metal Arc Welding (SMAW) welding root pass to cover pass on the 2.5" diameter domestic water line and 4" diameter compressed air line. The welder was noted welding the root pass with 3/32" diameter E6010 electrode and followed by fill pass to cover pass using 3/32" diameter E7018H4R electrode implementing Caltrans approved procedure FW Spencer WPS 1-12-1Rev 2. The welder was noted preheating and removing the moisture of the joint using a portable propane gas torch prior welding. During welding, ABF QC Steve Jensen was noted monitoring the parameters of the welder. At the end of the shift, two (2) 2 1/2" and two (2) 4" diameters field splices were completed.

## Location Service Remarks

1. #9/2 1/2"/PP59/NE Domestic Water CJP welding completed
2. #9/4"/ PP59/NE Compressed Air CJP welding completed
3. #8/2 1/2"/PP57/NE Domestic Water CJP welding completed
4. #8/4"/PP57/NE Compressed Air CJP welding completed



## Summary of Conversations:

No significant conversation occurred today.

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

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Inspected By: Lizardo, Joselito

Quality Assurance Inspector

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**Reviewed By:**      Levell,Bill

QA Reviewer