

**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-017453**Date Inspected:** 13-Oct-2010**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>                   | John Pagliero and William Sherwood |           |            | <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>                | Orthotropic Box Girder |           |            |

**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.

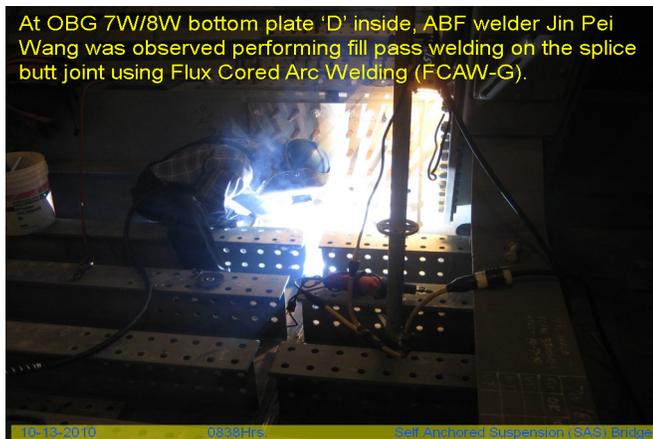
At OBG 7W/8W top deck plate 'A1 to A5', QA randomly observed ABF certified welder James Zhen ID #6001 and Mike Maday ID #3391 perform 1G (flat position) Submerged Arc Welding (SAW) on the splice butt joint. Welder Mike Maday was noted welding root pass from A1 to A3 while welder James Zhen was also welding root pass from A3 to A5. The welders were utilizing F7A6-EM12K-H8, 3.2mm electrode with corresponding Esab OK Flux 10.62 flux and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1. The joint being welded had a single V-groove butt joint with backing bar. The plates were preheated to more than 150 degree Fahrenheit using Miller Proheat 35 Induction Heating System heater blankets located on top of the plate prior welding and moving it the side during welding. ABF/QC William Sherwood was noted monitoring the welding parameters of welder Mike Maday and welder James Zhen. QA noted the welding parameters, the workmanship and appearance of the completed root pass deemed satisfactory. After welding the root pass, both welders cleaned up their welds in preparation for the Magnetic Particle Testing (MT) to be performed prior filling the welds. ABF QC William Sherwood was observed performing the MT at location A1 to A3 while ABF QC Jesse Cayabyab was observed performing MT at location A3 to A5. MT of the root pass on both locations was completed without any significant defects noted and the welders have resumed SAW welding after that. At the end of the shift, SAW fill pass welding was still continuing and should remain tomorrow.

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At OBG 6W/7W side plate 'E' (9855mm to 10555mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 perform CJP groove (splice) welding fill pass on the splice butt joint. The welder was observed perform manual welding in the 3G (vertical) position utilizing a Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040A. The joint being welded had a single V-groove butt joint with backing bar. During welding, ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters of the welder. During the shift, welding of the weld cover reinforcement on the splice butt joint was completed and the welder has moved to side plate 'C' of the same OBG and prepared the welding equipment and splice butt joint for the next 3G FCAW-G welding.

At OBG 7W/8/W bottom plate 'D' inside, QA randomly observed ABF/JV qualified welder Jin Pei Wang ID # 7299 perform CJP groove (splice) welding fill pass on the north end (600mm long) of the splice butt joint where the SAW track mounted wire feeder had limited access . The welder was observed perform manual welding in the 1G (flat) position utilizing a dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3040A-1. The joint being welded had a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 150 degrees Fahrenheit using propane gas torch during welding. ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters of the welder. During the shift, the welder was pulled out from this location and went to the top deck plate 'A' of the same OBG wherein he assisted another ABF welder James Zhen in performing the Submerged Arc Welding.



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**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 Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

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| <b>Inspected By:</b> | Lizardo, Joselito | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Levell, Bill      | QA Reviewer                 |

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