

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-028568**Date Inspected:** 10-Oct-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

| | | | | | | | |
|------------------------------------|----------------------------------|----|-----|----------------------------------|---------|----|-----|
| CWI Name: | William Sherwood and Barry Drake | | | 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:

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 12E-PP116.5-E5 deck access hole inside, QA randomly observed ABF/JV qualified welder Mike Jimenez continuing to perform CJP groove welding repair on a Seismic Performance Critical Member (SPCM) due to Ultrasonic Testing (UT) detected defect on welded butt joint. The welder was using Miller Proheat 35 Induction Heating System with the heater blanket put on top of the plate to preheat the repair area and its vicinity to 325°F and as soon as the required temperature was attained the welder started performing the welding repair. Welder Mike Jimenez was observed manually welding in 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing Caltrans approved welding procedure ABF-WPS-D15-1004 Repair. During welding, ABF QC William Sherwood was noted monitoring the welder's welding parameter with measured working current of 130 amperes on the 3.2mm diameter E7018H4R electrodes. During the shift, the repair welding at the location mentioned above was completed and the welder performed the post weld heat treatment (PWHT) of 450°F on the completed repair using the Miller Proheat 35 Induction Heating System and held it for one hour as required.

| Y-location | Length | Width | Depth | RWR# | Remarks |
|------------|--------|-------|-------|------|---------|
|------------|--------|-------|-------|------|---------|

| | | | | | |
|----|--------|-------|------|------|-------------------------|
| 1. | 2670mm | 480mm | 35mm | 11mm | 201208-115 R2-completed |
|----|--------|-------|------|------|-------------------------|

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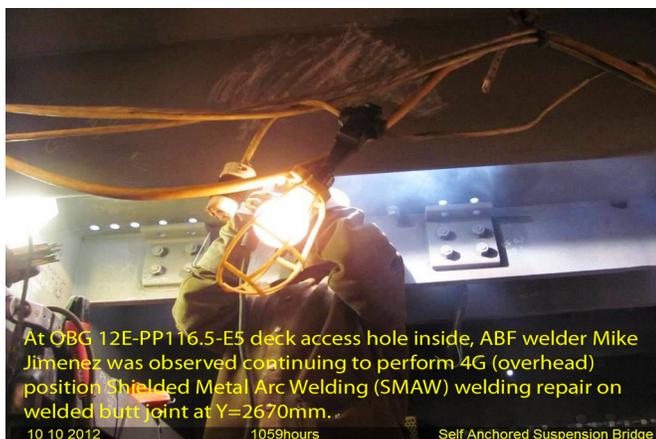
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At OBG 12E-E2.1-@31000mm corner drop-in top deck plate inside, QA randomly observed ABF/JV qualified welder Wai Kit Lai continuing to perform CJP groove welding first time repair on a non-Seismic Performance Critical Member (SPCM) due to Ultrasonic Testing (UT) detected defect on welded splice butt joint. The welder was noted using propylene gas torch to preheat the repair area and its vicinity to >150°F and as soon as the required temperature was attained the welder started performing the welding repair. Welder Wai Kit Lai was observed manually welding in 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing Caltrans approved welding procedure ABF-WPS-D15-1000 Repair Rev. 2. During welding, ABF QC William Sherwood was noted monitoring the welder's welding parameter with measured working current of 126 amperes on the 3.2mm diameter E7018H4R electrodes. During the shift, repair welding at the location listed below were noted;

| Y-location | Length | Width | Depth | Remarks |
|------------|--------|-------|-------|-----------------|
| 1. 2540mm | 120mm | 25mm | 9mm | R2 – completed. |
| 2. 2920mm | 130mm | 27mm | 9mm | R2 – completed. |

FW Spencer:

As for FW Spencer, there was no welding activity performed by the welder today. FW Spencer personnel were noted laying pipes at the west bound of the bridge along the W2 grid line.



Summary of Conversations:

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

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| Inspected By: | Lizardo,Josecito | Quality Assurance Inspector |
| Reviewed By: | Reyes,Danny | QA Reviewer |
