

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-018721**Date Inspected:** 13-Dec-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

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|------------------------------------|-----------------------------------|-----------|------------|----------------------------------|------------------------|-----------|------------|
| CWI Name: | William Sherwood and Mike Johnson | | | 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: | 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.

The following deck access hole infill plate to top deck plate welding was observed;

1. At OBG 3W-PP23.5-W2-N outside – ABF welder Kenneth Chappell was observed 1G Shielded Metal Arc Welding (SMAW) welding fill pass on the infill plate to top deck plate butt joint. The welder was noted using 1/8” diameter E7018H4R electrode. During the shift, fill pass welding was still in progress when the welder was told to move to another deck access hole and do the fit up and weld the root pass and fill pass to close the opening in anticipation of the approaching rain.
2. At OBG 3W-PP19.5-W5-S outside - ABF welder Mick Chan was observed 1G SMAW welding fill pass on the infill plate to top deck plate butt joint. The welder was noted using 3/16” diameter E7018H4R electrode. At the end of the shift, fill pass welding was still in progress.
3. At OBG 3W-PP19.5-W2-NW outside - ABF welder Kenneth Chappell was observed tack welding the infill plate to top deck plate. After the completion of the fit up, ABF QC William Sherwood performed the fit up alignment check which he accepted. QA verified and confirmed the alignment. The welder was noted using 1/8” diameter E7018H4R electrode. The root pass was welded on the butt joint followed by fill pass. During the shift, fill pass welding on this location was still continuing which should remain tomorrow

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The two welders working on the deck access hole mentioned above were noted welding/implementing Caltrans approved welding procedure specification ABF-WPS-D15-1010 Revision 1. Both welders and their welding parameters was monitored by ABF QC William Sherwood.

At OBG 1W-PP9.5-W3-#3 & 4 lifting lug access infill plate to top deck plate outside, ABF welder Mike Jimenez was observed 1G SMAW welding root pass to fill pass on the infill plate to top deck plate butt joint. The joint being welded has a 45 degrees single bevel groove joint with copper backing plate. The welder was noted using 1/8" diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1070. Prior welding, fit up alignment was verified/accepted by ABF QC Mike Johnson which was concurred by this QA. ABF QC Mike Johnson was noted monitoring the welder's welding parameters. At the end of the shift, fill pass welding on this location was still continuing which should remain tomorrow.

At OBG 1W-PP9.5-W4-#1 & 2 lifting lug access infill plate to top deck plate outside, ABF welder Darcel Jackson was observed 1G SMAW welding root pass to fill pass on the infill plate to top deck plate butt joint. The joint being welded has a 45 degrees single bevel groove joint with copper backing plate. The welder was noted using 1/8" diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1070. Prior welding, fit up alignment was verified/accepted by ABF QC Mike Johnson which was concurred by this QA. ABF QC Mike Johnson was noted monitoring the welder's welding parameters. At the end of the shift, fill pass welding on this location was still continuing which should remain tomorrow.

This QA performed 10% MT verification at the following lifting lug access holes and stiffeners welded butt joints. Please see TL-6028 report for more information.

1. OBG3E-PP22-E4- #1, 2, 3 & 4 outside - no defects noted.
2. OBG 6E-PP37.5-E2-TS transverse stiffener inside – no defects noted.
3. OBG 6E-PP37.5-E2-LS-W longitudinal stiffener inside – no defects noted.
4. OBG 6E-PP37.5-E2-LS-E longitudinal stiffener inside – no defects noted.

Flush grinding/grinding cut orientation and smooth finish verification on the bottom of welded lifting lug restoration at the following locations were verified by this QA;

1. 2E-PP17-E3-#4
2. 3E-PP20-E3-#1 & #2
3. 3E-PP20-E4-#4
4. 3E-PP22-E4-#1
5. 3E-PP22-E3-#2

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

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer