

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-026766**Date Inspected:** 28-Nov-2011**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:** Bernie Docena**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 14E-PP125.2-E5 vent hole infill plate to top deck plate inside, ABF welder Rick Clayborn was observed continuing to perform 4G Shielded Metal Arc Welding (SMAW) back welding cover pass on the infill plate to top deck plate butt joint. The welder was noted using 1/8" diameter E7018H4R implementing Welding Procedure Specification (WPS) ABF-WPS-D15-1110A Rev.1 for the Seismic Performance Critical Member (SPCM) butt joint. Prior back welding, ABF QC Bernie Docena was observed performing Magnetic Particle Testing (MT) on the ground surface of the back gouging with positive result. During welding, ABF QC Bernie Docena was noted monitoring the welder's welding parameters with measured working current of 126 amperes on the 1/8" diameter E7018H4R electrode. The welder was noted preheating the plates to more than 150°F using propylene gas torch prior welding. During the shift, cover pass welding on the bottom side location of the butt joint was completed and the welder has moved to another vent hole OBG 14E-PP125.2-E4.2 and performed 4G SMAW back welding.

At OBG 14E-PP125-E4-#4 lifting lug hole infill plate to top deck plate inside, ABF welder Erick Sparks was observed continuing to perform 1G Shielded Metal Arc Welding (SMAW) back welding fill pass to cover pass on the infill plate to top deck plate butt joints. The welder was noted using 1/8" diameter E7018H4R implementing Welding Procedure Specification (WPS) ABF-WPS-D15-1050A-CU Rev.1 for the Seismic Performance Critical Member (SPCM) butt joint. During welding, ABF QC Bernie Docena was noted monitoring the welder's welding parameters with measured working current of 135 amperes on the 1/8" diameter E7018H4R electrode. The welder

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was noted preheating the plates to more than 150°F using propylene gas torch prior welding. During the shift, cover pass welding on the top side location of the butt joint was completed and the welder has moved to another lifting lug hole 14E-PP125-E4-#1 of the same OBG. The welder performed the fit up and after the acceptance from QC and verification from this QA, the welder started welding the root pass using the same process as mentioned above.

At OBG 14W and 14E, the following lifting lug holes to top deck plate adjacent base metal (approximately 6" to 8") were tested using Magnetic Particle Testing (MT) in addition to the same test that was performed to the same holes for the purpose of information only in view of the found linear indication on one (1) of the lifting lug holes. The remaining lifting lug holes that were not MT tested today will be done tomorrow or when the welding is completed and access is available.

Location Remarks

1. OBG 14W-PP128-W4-# 1 to 4 All four (4) lifting lug holes adjacent base metal noted without linear indication.
2. OBG 14W-PP128-W3-# 4 This lifting lug hole being preheated in preparation for repair tomorrow
3. OBG 14W-PP125-W3-# 1 to 3 Limited access due to preheating being done at hole mentioned above.
4. OBG 14W-PP125-W3-# 3 & 4 Welding in progress.
5. OBG 14W-PP125-W3-# 1 & 2 To be welded.
6. OBG 14E-PP128-E4-# 1 to 4 All four (4) lifting lug holes adjacent base metal noted without linear indication.
7. OBG 14E-PP128-E3-# 1 & 2 Two lifting lug holes adjacent base metal noted without linear indication.
8. OBG 14E-PP128-E3-# 3 & 4 Limited access. Holes partially covered with winch base plate.
9. OBG 14E-PP125-E3-# 1 to 4 All four (4) lifting lug holes adjacent base metal noted without linear indication.
10. OBG 14E-PP125-E4-# 1 & 2 Welding in progress.
11. OBG 14E-PP125-E4-# 3 & 4 Welded from top only.

This QA Inspector verbally informed QA SPCM Lead Inspector, Daniel Reyes, of the issues noted in this report for compliance therefore for further details of issues of significance see QA SPCM Lead Inspector, Daniel Reyes, Daily Inspection Report (6031) for this date.

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

Reviewed By: Levell, Bill

QA Reviewer