

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-028921**Date Inspected:** 27-Dec-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**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 Tower and 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 8W-PP61.5-W2 deck access hole outside, QA randomly observed ABF/JV welder Cris Bruce continuing to perform CJP groove welding third time repair on a Non-Seismic Performance Critical Member (SPCM) due to Ultrasonic Testing (UT) detected defect on welded splice butt joint. The welder excavated the defect using a die grinder and after its completion, ABF QC Salvador Merino performed Magnetic Particle Testing (MT) on the removal of the defects with no relevant defect noted during the test. 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 Cris Bruce was observed manually welding in 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing the welding procedure ABF-WPS-D15-1000 Repair. Welder Cris Bruce was noted welding at location Y=2640mm with excavation dimensions 70mm long x 20mm wide x 10mm deep and with RWR #201211-035. During welding, ABF QC Barry Drake was noted monitoring the welder's welding parameter with measured working current of 135 amperes on the 3.2mm diameter E7018H4R electrodes. During the shift, this 5th time repair welding mentioned above was completed.

At OBG 12E-PP109.5-E2 and 12E-PP109.5-E5 deck access hole inside, QA randomly observed ABF/JV qualified welder Ric Chouinard continuing to perform fillet welding on both sides of 485W plate stiffener to deck access hole infill plate. The welder was noted fillet welding the area where it was left by the contractor from ZPMC,

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

China. The welder was observed welding in the 4F (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing the welding procedure ABF-WPS-D15-F1200A Rev. 1. The fillet weld connection between two different grades of material (HPS 485W/A709) was preheated to more than 250 degree Fahrenheit using propane gas torch prior welding. The welding activity was monitored by ABF QC Salvador Merino. During the shift, the welder has completed the 8mm fillet welding on both sides of the plate stiffener (PS1) to the deck access hole infill plate.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on the deck access hole butt weld joint and its longitudinal stiffener splice butt joint. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

1. OBG 12E-PP116.5-E5 deck access hole – weld joint cover QA verified.
2. OBG 5E-PP29.5-E5 LSW – longitudinal stiffener weld joint splice cover QA verified.
3. OBG 5E-PP29.5-E5 LSE – longitudinal stiffener weld joint splice cover QA verified.



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

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Reyes, Danny

QA Reviewer