

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-028922**Date Inspected:** 28-Dec-2012**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**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 12W-W2.1-C1 side plate inside, QA randomly observed ABF/JV welder Cris Bruce continuing to perform CJP groove welding second 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 William Sherwood 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 the second time repairs at locations Y=29865mm with excavation profile of 110mm long x 30mm wide x 13mm deep; Y=30060mm 220mm long x 30mm wide x 13mm deep; and at Y=30300mm 150mm long x 25mm wide x 12mm deep. During welding, ABF QC William Sherwood was noted monitoring the welder's welding parameter with measured working current of 170 amperes on the 4.0mm diameter E7018H4R electrodes. During the shift, the three (3) second time repairs welding being welded simultaneously were not completed and should continue Monday.

At OBG 12W-W2.1-C1 side plate inside, QA randomly observed ABF/JV welder Ric Chouinard continuing to perform CJP groove welding second time repair on a Non-Seismic Performance Critical Member (SPCM) due to

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

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 William Sherwood 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 Ric Chouinard 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 Ric Chouinard was noted welding at locations Y=21320mm with excavation profile of 100mm long x 25mm wide x 11mm deep; and at Y=21770mm 120mm long x 25mm wide x 11mm deep. 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 two (2) second time repairs welding being welded simultaneously were completed.

At OBG 13W-PP122.2-W5 deck stiffener flange inside, QA randomly observed ABF/JV welder Rick Clayborn continuing to perform CJP groove welding second time repair on a Non-Seismic Performance Critical Member (SPCM) due to Ultrasonic Testing (UT) detected defect on welded stiffener T-joint. The welder excavated the defect, removed the backing bar with open root using a die grinder and after its completion, ABF QC William Sherwood 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 Rick Clayborn was observed manually welding in 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing Caltrans welding procedure ABF-WPS-D15-1000 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 second time repair welding was still continuing and should remain Monday.

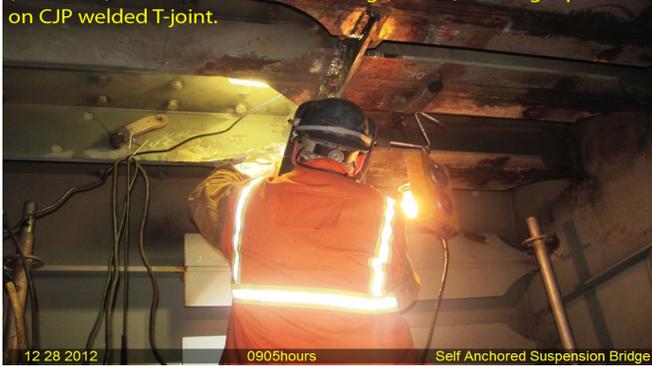
At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on the deck access hole butt weld joint and its longitudinal stiffener splice butt joint . The QA verification was performed to verify that the welding and the VT/MT inspection performed by the 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-PP109.5-E5 PS1 – DAH plate stiffener fillet weld joint cover QA verified.
2. OBG 12E-PP109.5-E2 PS1 – DAH plate stiffener fillet weld joint cover QA verified.
3. OBG 12E-PP116.5-E5 PS1 – DAH plate stiffener fillet weld joint cover QA verified.

WELDING INSPECTION REPORT

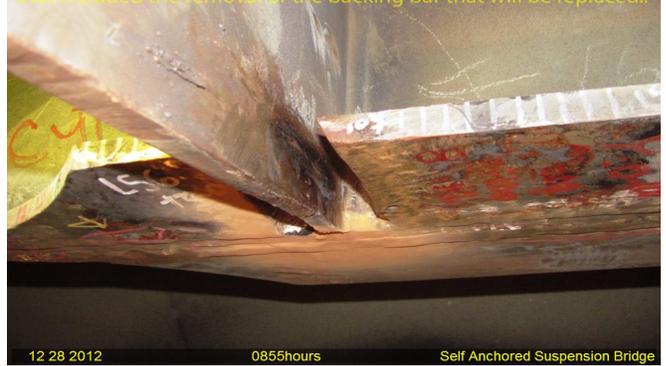
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At OBG 13W-PP122.2-W5 LS6-TSA deck stiffener flange to transverse stiffener 'A', ABF welder Ric Clayborn was observed perform 4G (overhead) Shielded Metal Arc Welding (SMAW) welding repair on CJP welded T-joint.



12 28 2012 0906hours Self Anchored Suspension Bridge

At OBG 13W-PP122.2-W5 LS6-TSA deck stiffener flange to transverse stiffener 'A', ABF personnel have excavated the UT detected defect that included the removal of the backing bar that will be replaced..



12 28 2012 0855hours Self Anchored Suspension Bridge

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