

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-026689**Date Inspected:** 11-Nov-2011**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:** 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 13E/14E bottom plate 'D1' (Y=600mm to Y=3100mm) inside, QA randomly observed ABF certified welder James Zhen ID #6001 continuing to perform 1G (flat position) Submerged Arc Welding (SAW) welding root pass to fill pass on the unequal plate thickness (35mm/30mm) Complete Joint Penetration (CJP) splice butt joint. The welder was utilizing F7A6-EM12K-H8, 3.2mm electrode with corresponding Esab OK Flux 10.62 flux and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1. The Seismic Performance Critical Member (SPCM) joint being welded has a single V-groove butt joint with backing bar that will be removed then back welded. The plates were preheated to more than 200 degree Fahrenheit using Miller Proheat 35 Induction Heating System heater blankets located at the opposite side of the plate prior/during welding. Welding parameters were monitored by ABF/QC Bernie Docena. Prior welding, ABF personnel were noted plugging some welding cope of the diaphragm to divert the water from getting into the weld area due to rain today. ABF personnel have also put a big tarp to cover and protect the weld area. After completing putting all the necessary protection for the weld area, the welder has started performing the SAW. QA noted the welding parameters, the workmanship and appearance of the completed fill pass deemed satisfactory. At the end of the shift, fill pass welding was not completed and the welder has held the preheat of more than 200°F for three more hours after welding as required.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC

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VT/MT of the Complete Joint Penetration (CJP) welding of one (1) lifting lug hole infill plate to top deck plate 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 weld and the QC inspection complied with the contract documents.

1. OBG 11E-PP100-E3-#3 lifting lug hole outside - QA VT/MT verified

At OBG 13E/14E bottom plate 'D1' (Y=600mm to Y=3100mm) inside, ABF personnel were noted using the Miller Proheat 35 Induction Heating System to preheat and maintain the required temperature pre/post during/after welding.



At OBG 13E/14E bottom plate 'D1' (Y=600mm to Y=3100mm) inside, ABF welder James Zhen was observed performing 1G Submerged Arc Welding (SAW) welding all pass on 30/35mm unequal thickness splice butt joint.



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
