

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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029546**Date Inspected:** 02-May-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** USA Hoist**Location:** USA Hoist, Crest Hill, IL

CWI Name:	Robert Zimny		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** Elevator Cab frame assembly**Summary of Items Observed:**

At the start of shift, this Quality Assurance Inspector (QAI) traveled to the Fabricator's shop and observed the work and the inspection performed by USA Hoist personnel. The inspection was performed on the Elevator Cab frame assembly and on the Elevator Tower Poles. The welding was performed utilizing Flux-Cored Arc Welding with shielding gas process (FCAW-G) as per the approved Welding Procedure Specifications (WPS's).

At the start of the shift this QAI observed the following:

This Quality Assurance Inspector (QAI) Monty Morris arrived at the USA Hoist facility for the purpose of inspection in regards to welding and procedures.

This QAI met with the USA Hoist representative Tim Moran for the purpose of inspection of the welding on the Elevator Cab and the Tower Elevator support poles in accordance with the contract specifications. Upon arrival to the fabshop, Tim Moran conducted a tour of the facility. This QAI was informed that the Elevator Cab frame assembly was completed and awaiting his inspection and 'Green-Tag' release.

This QAI received and reviewed the approved WPS's, the welder qualification documentation, and the shop fabrication drawings. This QAI met the shop Quality Control (QC) subcontractor Robert Zimny and observed welding in progress of Tower Elevator support pole subassemblies.

The welding that was in progress was being performed as per the AWS D1.1 code and per WPS FCAW-3210 utilizing 'Kobe' brand E71T-1 'Familiarc' .045 wire as per AWS A5.20. The shielding gas utilized was a 75%

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Argon /25% Carbon Dioxide mix at a flow rate of 35 Cubic Feet per Hour as per the WPS. The welding this day was being performed by the certified welders Manolo Luna #B for the Cab Frame assembly, and by Jose Dominguez #C for the Tower elevator support poles.

It was noted by this QAI that, per the shop drawing weld symbols, welds throats were undersized of joints requiring skewed fillet and flare-bevel welds of pipe (round tubing) sections at the ends of the tower poles where the sections will subsequently be high-strength bolted together.

This QAI visually viewed the welding of the Elevator Cab frame assembly and noted the following discrepancies: Welds were missing on the top sides of plates #13 (2 total); Welds were missing at the back side of plate item #68 to C4x5.4 channels #20 and #24; Sheet steel skins #3 (2 total) and their associated welds to 'toe-to-toe' formed-channel items #27 and #58 were missing; The weld of plate item #63 to channel item #11 was undersized; The ends of item #52 were not properly terminated (no welds existed at the longitudinal sides at the ends) as required for intermittent type welds.

This QAI notified and showed the above-mentioned discrepancies to USA Hoist's Engineer and Shop Foreman towards getting the issues resolved and the welds completed. The additional welding work required for the Elevator Cab was begun this day, but not completed.

It was noted by this QAI that all welds that were observed displayed a quality workmanship finish, disregarding the above-mentioned sizing discrepancies on this date.



Summary of Conversations:

No significant conversations took place.

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.

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Inspected By: Morris, Monty

Quality Assurance Inspector

Reviewed By: Foerder, Mike

QA Reviewer