

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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027097**Date Inspected:** 18-Jan-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** L & M Industrial Fabricators**Location:** Tangent, Oregon**CWI Name:** Tom Dreyer**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:** Tower Chimney Parapet**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Art Peterson arrived at L & M Industrial Fabricators between the times noted above to randomly observe Quality Control (QC) personnel monitor the welding operations performed by L & M personnel on the fabrication of chimney parapet walls to the Tower Heads. The following observations for the extra work being performed to the following contract change order were:

CCO: 196 - Description: Construct parapet walls at the Tower Heads

South Tower Chimney Parapet:

This QA Inspector randomly observed L & M welder Corey Hoyer (Welder ID #6) performing the root, fill, and cover pass weld operation on a complete-joint-penetration (CJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet wall base plate-A4a to A4b-wall plate of the South Chimney Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature as per the WPS was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-TC-U4b-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The WPS-D1.5-FC-TC-U4b-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 to the Engineer for approval but has yet to be approved. This QA Inspector generated an Incident Report on January 12th, 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's.

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This QA Inspector randomly observed L & M welder Bradford Schroyer (Welder ID #16) performing the root, fill, and cover pass weld operation on a partial-joint-penetration (PJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet wall base plate-A6b to Tower Head Top plate of the South Chimney Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature as per the approved WPS was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-TC-P4-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The WPS-D1.5-FC-TC-P4-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 to the Engineer for approval but has yet to be approved. This QA Inspector generated an Incident Report on January 12th, 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's.

North Tower Chimney Parapet:

This QA Inspector randomly observed L & M welder David Harrington (Welder ID #34) performing the root, fill, and cover pass weld operation on a complete-joint-penetration (CJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet wall base plate-A6a to A6b-wall plate of the North Chimney Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature as per the approved WPS was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-TC-U4b-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

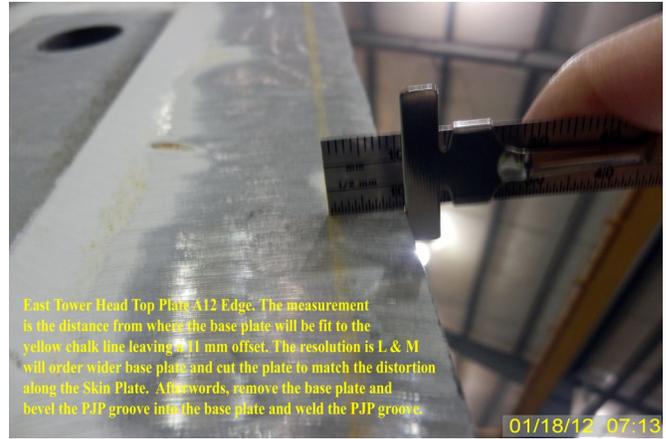
The WPS-D1.5-FC-TC-U4b-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 to the Engineer for approval but has yet to be approved. This QA Inspector generated an Incident Report on January 12th, 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's.

This QA Inspector randomly observed L & M welder Jake Schuld (Welder ID #17) performing the root, fill, and cover pass weld operation on a partial-joint-penetration (PJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet's wall base plate-A8a to Tower Head Top plate plate of the North Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature as per the approved WPS was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-B-P3-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The WPS-D1.5-FC-B-P3-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 to the Engineer for approval but has yet to be approved. This QA Inspector generated an Incident Report on January 12th, 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's.

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East Tower Head Top Plate A12 Edge. The measurement is the distance from where the base plate will be fit to the yellow chalk line leaving 2.11 mm offset. The resolution is L & M will order wider base plate and cut the plate to match the distortion along the Skin Plate. Afterwards, remove the base plate and bevel the PJP groove into the base plate and weld the PJP groove.

Summary of Conversations:

Only general conversations with the QC Inspector.

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 Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Peterson, Art

Quality Assurance Inspector

Reviewed By: Mertz, Robert

QA Reviewer