

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015964**Date Inspected:** 30-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See below**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:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified 4W/5W, 5W/6W and the following observations were made:

4W/5W-E2

The QA Inspector randomly observed the ABF welder Song Tao Hunag had previously started the induction heating blankets on the inside of OBG to ensure the minimum required preheat of 150°F was achieved prior to welding. The QA Inspector randomly verified utilizing a 150°F temperature indicating marker and noted the minimum required preheat had been achieved. The QA Inspector observed the ABF welder to be utilizing the semi automated flux cored arc welding (FCAW) for the above identified weld joint. The QA Inspector randomly observed the Smith Emery (SE) QC Inspector identified as John Pagliero set the FCAW machine to the parameters of the approved WPS identified as ABF-WPS-D1.5-3042-B-1 The QA Inspector randomly observed the FCAW parameters were 250 Amps, 23.8 Volts and a travel speed of 310mm/min. The QA Inspector noted the weld was approximately 85% complete upon the arrival of the QA Inspector. The QA Inspector observed the ABF welder complete the FCAW cover pass for the above identified weld segment. The QA Inspector observed the ABF welder spent the remainder of the QA Inspectors shift moving the FCAW machine and setting up on the weld segment E1.

5W/6W-D

The QA Inspector randomly observed the ABF welders Mike Maday and Bryce Howell performing plasma arc gouging. The QA inspector randomly observed the ABF welder removing the steel backing bar from the bottom

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

side of the above identified weld joint. The QA Inspector randomly observed the steel backing bar was approximately 50% removed at the end of the QA Inspectors shift.

South Tower Shaft

The QA Inspector noted the temporary weld which was left on the South East corner of the South Tower Shaft base plate had been removed and tested. The QA Inspector previously issued and submitted an Incident Report regarding the temporary weld. The QA Inspector noted the SE QC Inspector Mike Johnson and the QA Inspector Danny Reyes observed the removal of the temporary weld as well as tested the area with magnetic particle testing.

Summary of Conversations:

The Caltrans Structures Representative Doug Wright informed the QA Inspector from the looks of the picture submitted with the Incident Report, the South East Corner of the base plate did not look like a weld. Mr. Wright went on to inform the QA Inspector the base plate appeared to had been burned from the looks of the picture. The QA Inspector re-affirmed and insisted the area pictured in the incident report was in fact a broken temporary weld which appeared to be left in place. Mr. Wright informed the QA Inspector there was no reason for a weld to be in that location. The QA Inspector urged Mr. Wright to observe the area on the base plate in person and visually to confirm any concerns over what the picture in the Incident Report entailed. In addition Mr. Wright informed the QA Inspector that Caltrans Construction Representatives Mark Woods and Brian Maroney have verbally expressed the temporary welds on the base plate may be left in place. The QA Inspector informed Mr. Wright that ABF and Smith Emery are in the process of removing the welds at the current time. Later in the shift Mr. Wright confirmed with the QA Inspector in fact the area at the South East Corner of the Tower base was a broken temporary weld.

The ABF Project Engineer John Callaghan informed the QA Inspector ABF is awaiting the ceramic round bar stock to begin welding of the 485W HPS stiffeners. Mr. Callaghan informed the QA Inspector as soon as the WPS is approved and the ceramic backing arrives ABF will likely begin the welding. Mr. Callaghan informed the QA Inspector, due to the large root gaps between the stiffeners, round ceramic bar stock will be used to butter or weld build the weld joints. Mr. Callaghan went on to inform the QA Inspector the ceramic will allow for minimal back gouging.

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 Mohammad Fatemi (916)-813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Bettencourt,Rick	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
