

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 #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005245**Date Inspected:** 18-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2100**Contractor:** Japan Steel Works**Location:** Muroran, Japan**CWI Name:** Chung Kuan**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, Jacking and Deviation Saddles**Summary of Items Observed:**

Steel Structure Welding Shop:

T1-1 Tower Saddle Casting and Steel Structure joint section: Caltrans Quality Assurance Inspector (QAI) representative observed Japan Steel Works (JSW) welders perform Flux Cored Arc Welding (FCAW) process on rib plate weld 7S-2U-1 and 7S-3U-1 of T1-1 tower. These two welds are connecting casting and steel structure. The filler metal used for FCAW is Hoballoy wire TM-55, 1.6 diameter made by Hobart Brothers, USA. The parameters used for FCAW welding of assemblies were conducted in accordance with Caltrans approved WPS #SJ-3011-6. The FCAW welding process and parameters have been monitored and recorded by CWI inspector Mr. Chung Kuan. Based on Caltrans QA observation, the FCAW welding operation appeared to be in general compliance with requirements of AWS D1.5 2002 and Caltrans contract documents.

Tower saddle Casting T1-2: Caltrans QAI representative observed four welders perform buttering build up welding on one stem plate 8S-2U of T1-2 tower saddle casting portion. This buttering welding is approved by Caltrans ABF-RFI-001453. The buttering layer is in order to decrease the pre-heating temperature as 110 C degree minimum for casting and steel portion during joint welding and increase of productivity. The buttering buildup metal welding utilizing the SMAW process was conducted by welder performed in the flat position (1G). A 10mm height weld metal has been weld up entire surface of stem plate. The proper filler metal used for SMAW is LB52A (E7016) with 5mm diameter electrode made by Kobe, Japan. The SMAW welding process and parameters have been Caltrans approved WPS # SJ-3012-1-2, also monitored and recorded by CWI inspector Mr. Chung Kuan. Based on Caltrans QA observation, the buildup SMAW welding operation appeared to be in general compliance with requirements of AWS D1.5 2002 and Caltrans approved RFI documents.

Summary of Conversations:

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

As noted within the report.

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:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer
