

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 #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005100**Date Inspected:** 24-Dec-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**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:

T1-3 Tower Saddle Steel Structure: The T1-3 steel structure has been waiting for JSW workers to rotate the structure 180 degree for flat position welding. However, this rotation process needs approximate three hours prior continue rib plates welding. CWI Mr. Kuan informed Caltrans QA Inspector that rib plate welding has been schedule for night shift.

W2E3 West Deviation Saddle Steel Structure: Caltrans QAI representative observed two JSW welders in process fit up and SMAW temporary tack welding on the W2E3 west deviation saddle steel structure portion. Total two rib plates numbered 3-9 and 3-10 has been fit up and tack weld attached to stem plate numbered 3-2. During observation Caltrans QAI has found three cracks on the vertical position task welds. All the cracks have been found will be 100% remove from the tack weld locations by grinding and the areas reevaluated by Magnetic Particle Test (MT) after the fit up process is finished. The fit up and tack welding process and parameters have been monitored and recorded by CWI inspector Mr. Chung Kuan.

Casting Shop: Casting Shop:

W2E3 West Deviation Saddle Casting Portion and T1-3 Tower Saddle Casting Portion: Caltrans QAI observed two NIS NDT level II technicians perform shear wave UT test on rib side of W2E3 West Deviation Saddle and straight beam UT test on rib side of T1-3 Tower Saddle. The thickness of both casing portion is 150mm to 500mm and both casing test surface have been Magnetic Particle Test (MT) prior UT test. A Krautkramer Branson USM 3 and Krautkramer USD52 UT instrument were used for the scanning. The search unit used for angle beam is an angle wedge 70 degrees x 2.5MHz and straight beam is 24mm x 2 MHz single transducer. The distance,

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reflection and sensitivity are calibrated on reference block made by same casting material. The liquid glycerin is used to couple the search unit to the test surface. Based on Caltrans observation, no discrepancies were noted. The UT test for both casing portions will be continuing tomorrow.

Summary of Conversations:

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
