

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-002303**Date Inspected:** 21-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2000**Contractor:** Japan Steel Works**Location:** Muraran, Japan

<b>CWI Name:</b>	Jomio Imai (Welding Engineer)	<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
		<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006	<b>Component:</b>	test plate		

**Summary of Items Observed:**

Witness welder qualification welding test:

Caltrans Quality Assurance (QA) representative, Mr. Wai Pau traveled to Japan Steel Work (JSW) in Mrroran Japan, to witness eight welders performed welder qualification test apply for Caltrans project San Francisco Oakland Bay Bridge (SFOBB) # 04-0120F4 cable saddle welding.

The welder qualification tests utilizing the Flux Cored Arc Welding (FCAW) process were conducted by welders welding in the flat position (1G) and horizontal position (2G). The 1G position test welder names are Mr. Toshio Kubota (75-1928), Mr. Yoshikazu Ichinoseki (02-4997) and 2G position test welder names are Mr. Motoi Hidaka (72-2081), Mr. Yuuhei Suzuki (03-2302), Mr. Yoshio Kabutomori (06-8000), Mr. Akira Takenami (06-8001), Mr. Kazuya Komai (06-8002) and Mitshunori Fujii (06-8004). The material used for the welder qualification test specimens was reported by JSW Welding Engineer Mr. Jomio Imai as ASME SA-516M Grade 450 having a wall thickness measurement of 19mm. The weld joint design used butt joint, single-V-groove weld with backing welding (ASME IX QW-402.4). The filler metal and shield gas used in the test is FC-1 (classification No: E71T-1) with 1.2mm diameter wire, made by Nippon Steel, Japan and 100% carbon dioxide (CO2) shielding gas. The FCAW welding parameters used for the welder qualification tests were conducted in accordance with procedure No. SP-84058-WP-4 which was previously submitted two days prior qualification test. Monitoring and recording of the welder qualification tests by JSW Welding Engineer Mr. Jomio Imai was observed by Caltrans QAI. The eight welder qualification tests appeared to be in general compliance with requirements of ASME IX 2005 section QW-400 and Caltrans contract documents.

**Summary of Conversations:**

JSW Welding Engineer Mr. Jomio Imai informed Caltrans QAI that Shielded Metal Arc Welding SMAW welder qualification test for ASME standard will schedule on 0830, 12-26-07. The specimens for today welder

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qualification tests are schedule for Non-Destructive Examined (NDE).

## **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 Venkatesh Iyer (858)697-6363, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Pau,Wai	Quality Assurance Inspector
<b>Reviewed By:</b>	Brasel,Ron	QA Reviewer

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