

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-001214**Date Inspected:** 09-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** Japan Steel Works**Location:** Muroran, Japan**CWI Name:****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:** West Deviation Saddle Segment W2E2**Summary of Items Observed:**

Observed in house Magnetic Particle Test (MT) on West Deviation Saddle Segments numbered W2E1:

Caltrans QA observed Nikko Inspection Service (NIS) two NDT level II technicians and two assistants performed Wet MT test on one side of West Deviation Saddle Segments numbered W2E1. The power source of MT testing used is electromagnetic yoke with Alternating Current (AC) made by Magnaflux; model number Y-8 AC/DC. The detection media used is wet red suspension particles. The technique uses wet suspension particles that are applied while the magnetizing force (multi direction) is on. The particle application must cease before the current flow ceases. A flaw indicator used to check the magnetic field direction and to ensure adequate field strength during MT testing. The test surface has been machining and relatively cleaned free of grease, oil and other moisture prior MT test.

First, the technician used 10 liter water mixed with 1kg non-fluorescent red magnetic particles in a container for 10 minutes. Next, the mixed wet suspension particle samples have been filled into a measureable glass container for settling volumes standard (See photo. The settling volumes indicated on glass container was 2.0 ml (ASME standard from 1.2 ml to 2.4 ml per 100ml). Then, the technician performed wet MT test, the wet suspension particle carrier by a squeeze bottle. The wet suspension particles are gently sprayed out and flowed over the surface of the test part quickly and easily covered with a relatively uniform layer of particles. The magnetizing force applied immediately after applying the wet suspension particles. The use of wet suspension particles is useful for detecting slight discontinuities on the smooth surface such as after machining. The MT test was completed at 15:00 and no relative indication was found on the test surface.

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Summary of Conversations:

Caltrans SMR Mr. Ron Brasel, QAI, JSW Mr. Sato Hitoshi and Mr. Itoh Yoshihiro has meeting around 1530. The purpose of the meeting was discussed in house NDT test reports and AWS PQR and welder qualification test schedule. The meeting detail check with SMR Mr. Ron Brasel daily report on Jan-09-08.

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.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Brasel,Ron	QA Reviewer
