

**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 #: 74.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000919**Date Inspected:** 27-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1600**Contractor:** Goodwin Steel, UK**Location:** Stoke on Trent, UK**CWI Name:** Arthur Ellis**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:** Cable Band**Summary of Items Observed:**

The following report is based on METS observations at Goodwin Steel Castings (GSC) facility in Hanley, Stoke on Trent, England. Current work: Repair welding of casting B4/A-1 excavation 2.

On this date, the QA inspector periodically observed Goodwin Steel Castings (GSC) welding personnel perform welding of excavations on Cable Band Casting B4/A-1, excavation number 2 with a length of 130mm, width of 150mm and depth of 70mm. The GSC welding personnel Mr. William Yates, identified as number 345, continued the in process repair welding of the shrinkage excavation utilizing the Shielded Metal Arc Welding (SMAW) process per the welding procedure specification WPS04-012F4B Issue 1 in the 1G (flat) position. The filler metal utilized was identified as 5mm diameter E-7018. The welding parameters and heat control were monitored by Quality Control (QC) inspector Mr. Arthur Ellis at periodic intervals. The minimum preheat temperature of 160 degrees Celsius and maximum interpass temperature of 425 degrees Celsius was verified to meet the WPS requirements by the QA inspector utilizing Tempilstik temperature indicators. The work was not completed on this date and appears to meet the minimum requirements of the welding procedure specification.

**Summary of Conversations:**

During this visit, METS met with Mr. Jason Cross, Goodwin Steel Castings Quality Assurance Manager. Mr. Cross reported that Goodwin Steel Casting, casting division has completed computer modeling and is planning to make changes to the casting risers to reduce the shrinkage as found in the initial castings. Another proof casting will be poured sometime in December, 2007.

**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) 967-6363, who represents the Office of Structural Materials

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# WELDING INSPECTION REPORT

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for your project.

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<b>Inspected By:</b>	Lanz,Joe	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cochran,Jim	QA Reviewer
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