

**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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027839**Date Inspected:** 24-Jun-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site

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

**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

The QAI was provided ABF QC reports to verify, utilizing ultrasonic testing for the Tower Shear Plate weld connection designated as E-045 #24 "F". The weld has been previously repaired and tested by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.4 and supplemental contract document SE-UT-D1.5-CT-108-ESW. The QA was informed previously that transverse indications were observed in repair excavations on similar Electro slag welds (ESW) on earlier dates and that scanning pattern "E" will need to be utilized in order to detect these indications. Due to the presence of weld reinforcement the QAI was unable to size the length and measure the "X" location on the welds in way of the suspected transverse indications.

The following suspected transverse indications detected ultrasonically on this date are neither rejectable nor recordable in accordance with AWS D1.5-2002, section 6, table 6.4, however some were observed to exhibit planar characteristics.

Face B (Weld E-045 #24 "F" )

Y=2760, Sound Path=75, Depth=24, AWS db Rating = +8

Y=2780, Sound Path=95, Depth=32, AWS db Rating = +17

Y=4160, Sound Path=101, Depth=34, AWS db Rating = +20

Y=4180, Sound Path=77, Depth=26, AWS db Rating = +24

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# WELDING INSPECTION REPORT

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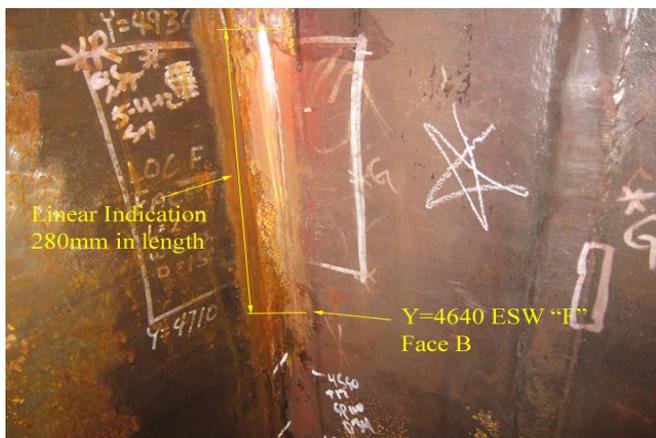
Y=4440, Sound Path=94, Depth=32, AWS db Rating = +26  
Y=4490, Sound Path=91, Depth=31, AWS db Rating = +20  
Y=5260, Sound Path=119, Depth=40, AWS db Rating = +15  
Y=5270, Sound Path=87, Depth=29, AWS db Rating = +19  
Y=5300, Sound Path=70, Depth=25, AWS db Rating = +18  
Y=5325, Sound Path=88, Depth=30, AWS db Rating = +21

During the QA visual inspection while performing UT, a linear indication was observed on weld ESW "F" from face B at Y=4640 in way of a previous repair not noted on the provided UT report. The indication was then confirmed by MT to be approximately 280mm in length located at the toe of the repair weld. (See attached photographs.)

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

No relevant conversations.



### 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.

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**Inspected By:** Patterson,Rodney

Quality Assurance Inspector

**Reviewed By:** Levell,Bill

QA Reviewer

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