

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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Petersen, Brian**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026250**Date Inspected:** 08-Sep-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Steve Jensen**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:** SAS Tower & OBG**Summary of Items Observed:**

At the start of the shift the Quality Assurance Inspector (QAI) traveled to the project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) personnel. The inspection was performed on various weld joints and Complete Joint Penetration (CJP) welds.

A). Tower Shear Plates

The QAI observed the continued Visual Testing (VT) and the Magnetic Particle Testing (MPT) on the Electro-Slag Weld (ESW) shear plate to the tower shaft skin plate connections located at the joints "N" and "R". The joints were also identified with a unique weld number and were noted accordingly; WN: N-041 and E-041. The inspection and testing were performed by John Pagliero. There were several areas marked by QC for additional grinding to remove linear indications that were found utilizing the MPT method. This work was not completed during this shift.

This QAI also observed the ongoing repair welding and grinding by various ABF personnel at the joint locations "H" and "E". The monitoring of the work and the inspection was performed by QC inspector, Bernie Docena. It appears that there is extensive work to be performed at these joints, such as overlap, slag entrapment at the toes of the weld and grinding of the weld profiles.

The QAI was also informed by Quality Control Lead Inspector, Bonifacio Daquinag, Jr., in regards to a center line crack discovered by QC inspector John Pagliero at the weld access hole of the lower sump area located at joint "N" and identified as WN: N-041. The crack was discovered during the performance of the Magnetic Particle Testing

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(MPT) and at the conclusion of the testing it was noted that approximate depth appeared to be full cross section of the weld. At the completion of the MPT, Mr. Pagliero performed an Ultrasonic Test (UT) to determine the length which was noted at 23 mm.

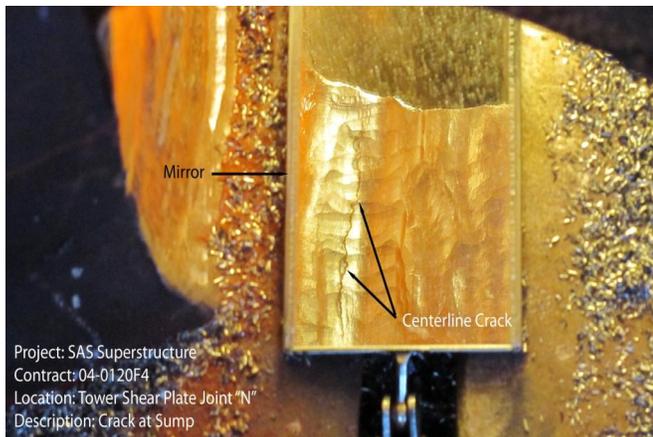
Later in the shift this QAI was notified by Structures Representative , Doug Wright, that an e-mail was issued by Pat Lowry, Structural Materials Representative (SMR), recommended that the excavations and repair welding be terminated at this time until the Contractor, American Bridge/Fluor JV, submit documentation regarding the reason for the cracking and the non-fusion issues of the Electro-Slag Welding on the tower shear plate to the tower skin plate connections.

B). Document Control Review

This QA Inspector continued the daily review of field inspection reports and update of the field document control tracking records regarding the Orthotropic Box Girders (OBG, Longitudinal and Transverse "A" Deck Stiffeners, Deck Access Holes and the Tower Shear plates. The QAI also updated the tracking records for the pipe welds and the pipe supports.

On this date the QAI continued the review of the inspection reports, tracking documentation for the OBG's W1, W2, W3 and W4.

The digital photograph below illustrate some of the work observed during this scheduled work date.



Summary of Conversations:

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection and N.D.E. testing personnel scheduled for this shift. There was also conversation with Structures Representative, Doug Wright, as noted in the body of this 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.

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Inspected By: Reyes,Danny

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer